



PHASE II ENVIRONMENTAL SITE ASSESSMENT

301 West Lenawee Street and 524 and 526 Townsend Street,
Lansing, Michigan

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AKT Peerless Project No. 5700L2-8-20

1.0 Introduction

AKT Peerless was retained to conduct a HUD-compliant Phase II Environmental Site Assessment (ESA) of a property located at 301 West Lenawee Street and 524 and 526 Townsend Street in Lansing, Michigan (subject property). This work was conducted in accordance with AKT Peerless' Proposal for a Phase II ESA (Proposal Number PB-15905) dated May 9, 2014 and is based on American Society for Testing and Materials (ASTM) Designation E 1903-97 "*Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*," and The Federal Housing and Urban Development (HUD) Environmental Assessment guidelines. This Phase II ESA was completed under the City of Lansing Brownfield Redevelopment Authority (LBRA) United States Environmental Protection Agency (EPA) brownfield assessment grant for petroleum sites (EPA Cooperative Agreement Number BF-00E010176-0). Project eligibility was confirmed by the EPA on April 18, 2014. Additionally, this investigation was conducted as a supplemental investigation to the project Sampling and Analysis Plan (SAP) dated April 25, 2014. The SAP was approved by the EPA on April 25, 2014.

The ESA was performed in accordance with Prudential Huntoon Paige Associates (PHP) Environmental Assessment Scope of Work, and applicable requirements of the U.S. Department of Housing and Urban Development (HUD) in connection with an evaluation of the subject property. AKT Peerless understands this Phase II ESA will be submitted to HUD in support of an application for new construction under the Section 221(d) 4 Program on behalf of Y-Site, LLC.

This Phase II ESA investigation scope of work is intended to further evaluate the recognized environmental conditions (RECs) presented in Section 2.4, as well as to obtain additional information concerning due care requirements associated with the development of the subject property. This Phase II ESA scope of work does not evaluate the following:

- Asbestos;
- Mold;
- Lead Paint; and,
- Off site concerns.

AKT Peerless' Phase II ESA investigation report documents the field activities, sampling protocols, and laboratory results conducted as part of this assessment. AKT Peerless' Phase II ESA was performed for the benefit of PHP and Y-Site, LLC, who may rely on the contents and conclusions of this report.

2.0 Background

2.1 Site Description and Physical Setting

The subject property consists of two parcels situated at the intersection of W. Lenawee Street and Townsend Street in downtown, Lansing, Michigan. The subject property is located in the southwest quadrant of Section 16 in the City of Lansing (T.4N./R.2W.), Ingham County, Michigan. The subject property is situated south of West Lenawee Street and between Townsend and South Walnut Streets. See the following table for additional subject property details:

Subject Property Identifiers

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	301 W. Lenawee Street	33-01-01-16-379-083	Y-Site, LLC	2.0
B	526 and 524 Townsend Street	33-01-01-16-379-061	Y-Site, LLC	0.23

Refer to Figure 1 for a topographic site location map and Figure 2 for a site map.

2.2 Subject Property History and Land Use

The subject property was previously developed as a YMCA constructed in 1950 and expanded in 1980 (301 W. Lenawee Street) and a two-story house that was later converted to professional office usage constructed in 1876 and expanded in 1953 and 1972 (524 and 526 Townsend Street). Prior to these developments, the subject property was predominantly used for single family residential, though a small machine shop was present on the northwest side. The subject property is currently vacant. The subject property is currently zoned Business (G-1) and is located in an area of Lansing that is characterized by a mix of commercial and residential properties, surface roadways, sidewalks, municipal sewerage and water, and electrical and natural gas utilities.

2.3 Adjacent Property Land Use

The following table describes the current uses of the adjoining properties and identified occupants that were noted during AKT Peerless' recent reconnaissance of the adjoining properties.

Adjoining Property Data

Direction	Address	Current Use / Occupant
Northwest	426 South Walnut Street	Office building / Michigan Association of Community Health
North	303 West Kalamazoo Street	Office building / Grady Porter Building of Ingham County Offices
Northeast	400 South Capitol Avenue	Recreational / City of Lansing Park
East-Southeast	505 Townsend Street	Residential / The Porter Apartments and parking

Direction	Address	Current Use / Occupant
South	West Hillsdale Street	Parking lot and residential
West and Southwest	South Chestnut Street	Residential and parking lot / Owner: Lansing School District

2.4 Summary of Recognized Environmental Concerns

On June 30, 2014, AKT Peerless completed a Phase I ESA for the subject property. This assessment revealed no evidence of RECs in connection with the property except for the following:

REC 1 - A machine shop was observed on the subject property on a 1913 fire insurance map. Hazardous substances and petroleum products may have been used in connection with this machine shop. Potential concerns associated with this historical use of the subject property include the potential for introduction of petroleum products and/or hazardous substances to the subject property via spills, releases and/or poor material handling/disposal practices. A February 2008 Phase II investigation identified the presence of chromium, mercury, selenium, silver, 2-methylnaphthalene, and naphthalene in soil at concentrations exceeding MDEQ Residential Drinking Water Protection (DWP), and/or Groundwater Surface Water Interface Protection (GSIP) criteria. Chromium, lead, mercury, and silver were detected in groundwater at concentrations exceeding MDEQ Residential DW and/or GSI criteria. Therefore, the property meets the definition of a "facility" as defined in Part 201 of the Natural Resources and Environmental Protection Act (NREPA), Michigan PA 451, 1994, as amended. The "facility" status of the subject property represents a REC and pVEC. Therefore, AKT Peerless recommends a Phase II subsurface investigation and Tier II vapor encroachment screening to assess the materiality of REC 1.

REC 2 - AKT Peerless was unable to fully access the basement of Subject Building 1 on Parcel A during this Phase I ESA due to the presence of standing water and ice in the basement. It is AKT Peerless' opinion that the inability to inspect the sub-basement of this building represents a data gap. However, the significance of this data gap cannot be verified until the basement water is removed to observe current conditions. Due to the volume of water in the sub-basement of the building, the Developer intends to dewater the basement prior to HUD Firm Commitment and install temporary sump pumps to assure the basement does not re-accumulate water. At that time, AKT Peerless will conduct an inspection of the basement to assess and document current conditions. To accomplish these activities AKT Peerless will collect water samples during the Phase II ESA investigation to determine if contaminants exist in concentrations of concern and facilitate the proper handling and disposal approval to manage the water removal. Finally, the subbasement will be thoroughly inspected once the standing water has been removed to assess the materiality of REC 2.

REC 3 - During the site reconnaissance two wall brackets with copper piping and an electrical switch was identified at the east portion of Subject Building 1 facing Townsend Street. The pipes and switch are characteristic features associated with the potential presence of a fuel oil tank. The potential for releases from a historic or existing UST represents a REC. Therefore, AKT Peerless recommends a phase II subsurface investigation to assess the materiality of REC 3.

REC 4 - Historic dental care operations in Subject Building 2 may have been associated with the use of mercury and silver with unknown handling and disposal practices. The potential for releases of mercury and silver represents a REC. AKT Peerless has been retained to complete an Asbestos and Hazardous Material Survey of both structures, which is currently underway. The results of the survey will be provided under separate cover.

Controlled Recognized Environmental Conditions (CRECs)

This assessment has revealed no evidence of known CRECs in connection with the subject property.

Historical Recognized Environmental Conditions (HRECs)

This assessment has revealed no evidence of known HRECs in connection with the subject property.

3.0 Supplemental Investigation Activities

The following sections summarize the investigation activities conducted by AKT Peerless.

3.1 Scope of Assessment

To further evaluate the RECs described in Section 2.4, AKT Peerless conducted an investigation of the subject property comprised of four primary work tasks. These activities included: (1) test pitting of the suspected underground heating oil tank location; (2) the installation of two soil gas sampling points at the former machine shop location; (3) sampling of the water collected in the former YMCA building basement; and (4) the logging and field screening of direct-push (i.e., GeoProbe) one soil borings and one hand auger boring, as well as drain trap sampling, to investigate the potential wastewater impacts from historic dentistry operation. From these activities, AKT Peerless personnel collected and analyzed four soil samples, two soil gas samples, five drain trap water samples, and three basement water samples. The following samples were submitted for laboratory analyses:

- Four soil samples for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and Michigan 10 metals (MI 10 metals) including arsenic, barium, cadmium, chromium, copper, lead mercury, selenium, silver, and zinc;
- Two soil gas samples for VOCs;
- Three basement water samples for VOCs, SVOCs, PCBs, and MI 10 metals; and
- Five drain trap water samples for mercury and silver.

The following table summarizes each REC, the site investigation activities performed to address each REC, and the laboratory parameters used to address each REC.

Table 3-1 Summary of Investigation Activity

REC #	Environmental Concern	Investigation Activity	Analytical Parameters VOCs, SVOCs/PNAs, PCBs, MI 10 Metals
1	Former machine shop pVEC	2 temp. soil gas points, 2 soil gas	VOCs

REC #	Environmental Concern	Investigation Activity	Analytical Parameters VOCs, SVOCs/PNAs, PCBs, MI 10 Metals
2	Water in basement	3 water samples	VOCs, SVOCs, PCBs, MI 10 Metals
3	Potential fuel oil tank	1 test pit, 2 soil	VOCs, SVOCs, PCBs, MI 10 Metals
4	Historical dentist operation	2 borings, 2-8 ft., 2 soil	VOCs, SVOCs, PCBs, MI 10 Metals
		5 drain trap water samples	Mercury and Silver

3.1.1 Investigation of Potential Underground Heating Oil Tank Location

During completion of the Phase I ESA, AKT Peerless observed pipe brackets and an electrical switch box on the eastern wall of the YMCA building. These items are consistent with the past use of an underground heating oil tank. AKT Peerless proposes investigating this location for the current or past presence of an underground heating oil tank.

Investigation of this location was conducted by test pitting. An environmental contractor, Young's Environmental Cleanup (YEC) under direction of AKT Peerless personnel excavated a test pit trench adjacent east side of the building at the bracket location. The trench was excavated approximately 15 feet in length to a depth of approximately five feet below ground surface (bgs) to search for piping and/or the top of any underground tank. Refer to Figure 2 for a site map with the test pit location. AKT Peerless' test pit log is provided in Appendix A.

AKT Peerless personnel inspected soil conditions and prepared a field log of findings. In addition, two soil samples for laboratory analysis of light distillate (i.e., fuel oil) parameters were collected to evaluate the presence/absence of contamination. Samples were collected based on field observations from each end of the excavation. As discussed above, based on the presence of significant amounts of urban fill containing brick, wood, glass and other debris fragments, the soil samples were also submitted for Michigan 10 metals analyses.

3.1.2 Former Machine Shop

Previous environmental assessments of the machine shop observed on the subject property on a 1913 fire insurance map (refer to Figure 2) detected the presence naphthalene and 2-methylnaphthalene in soil samples at concentrations exceeding Part 201 RCC. Based on the presence of these constituents, it was determined that a potential vapor intrusion concern (pVEC) existed at this location.

To assess the potential of a vapor intrusion concern in accordance with HUD requirements, AKT Peerless collected two soil gas samples for laboratory analysis. Refer to Figure 2 for sample locations. The soil gas samples were collected in general accordance with methods described in the MDEQ's *Guidance for the Vapor Intrusion Pathway* (May 2013). The soil gas samples were collected by advancing a boring to five-feet in depth and installing a temporary soil gas sampling point at each proposed location over the former machine shop property. The boring and sampling point were installed using a direct-push drilling rig.

The soil gas sampling points were each constructed of a six-inch long stainless steel screened point, which is connected to the surface with new 0.25-inch diameter Teflon tubing. The annular space around and six inches above the screen was filled with clean, coarse silica. The remainder of the borehole was filled with a bentonite seal to prevent communication between the screen interval and the ambient surface air via flow through the borehole.

A soil gas sample was collected from each sample point using a laboratory-provided one-liter soil gas canister. The canisters' collection rates were controlled using regulators that were pre-set by the independent laboratory with a flow rate of approximately 200 milliliter per minute. A separate canister and regulator were used for each sample. The soil gas canisters were properly labeled in the field and submitted to the independent laboratory under chain-of-custody control. The soil gas samples were submitted to the independent laboratory for analysis for the presence of VOCs, including naphthalene, using EPA Method TO-15.

Refer to Figure 2 for a site map with soil gas sampling locations.

3.1.3 YMCA Building Water Characterization

The basement level of the YMCA building is flooded with water from a past water line break and storm water that infiltrates through the building's compromised envelope. Prior to demolition, this water must be properly managed through evacuation and disposed at an approved facility [e.g., local wastewater treatment plant (WWTP)].

To support water management and disposal decisions, AKT Peerless collected three water samples for characterization purposes. The water samples were collected from three discrete locations distributed across the basement where water is present, including a basement racquet ball court, pool mechanical room, and mechanical room stairwell. The selected sampling points were biased toward locations of particular concern of contaminant sources, such as the electrical control and mechanical rooms. The water samples were collected using polyethylene disposal bailers. A new bailer was used for each sample. The water was decanted from the bailer into laboratory provided bottles.

The water samples were submitted under chain-of-custody control to the independent laboratory for analysis. Based on preliminary discussions with the City of Lansing, samples were analyzed to support obtaining a sanitary discharge permit for the following analyses:

- VOCs;
- SVOCs;
- PCBs; and
- Michigan 10 Metals.

3.1.4 Dental Office Sanitary System Investigation

AKT Peerless' Phase I ESA determined that the past use of the house structure at the subject property included the operation of a dental office on at least the second floor of the building. Visual inspection and historical document research could not isolate the dental clinic to just the second floor for the life of the operation. Environmental concerns associated with dental offices include the historic use of silver and mercury in dental fillings and amalgams. These heavy metals can collect in drain traps on sinks used in such operations.

To evaluate for potential releases of mercury and/or silver in the sanitary system with the building, as well as to support the proposed pre-demolition hazardous materials removal activities, AKT Peerless conducted a two-fold approach: drain trap sampling and analysis; and a sanitary sewer line investigation.

3.1.4.1 Drain Trap Sampling

To evaluate the potential presence of the heavy metals to remain in the sink drain traps, the following sampling procedure was used for five sink traps still located within the first and second floors.

1. Each sink drain trap was removed from the sanitary piping system and labeled as to its identification/location.
2. Each trap was filled with laboratory-provided deionized (DI) water and allowed to sit for at least one hour.
3. At the end of one hour, the water was decanted from the trap into the laboratory-provided sample bottles.
4. Each trap was placed in an individual plastic Ziploc bag and staged at the building for later collection with the pre-demolition hazardous material abatement, as appropriate and warranted based on the laboratory analytical results.

The decant liquid from each tested trap was collected in a 500 mL, nitric acid preserved bottle and submitted under chain-of-custody control to the independent laboratory for mercury and silver analysis.

3.1.4.2 Sanitary Sewer Investigation

To investigate the potential of a leaking sanitary sewer to have released metals from the dentist operation, AKT Peerless proposed investigating soil conditions adjacent to the main sanitary stack/trunk line in the building and adjacent to the sanitary line leading from the building to the municipal main.

AKT Peerless drilled one boring in the basement of the building adjacent to the main stack line. Prior to drilling, the concrete floor was cored to allow access. The boring was advanced using a stainless steel hand auger to a depth of two feet below the floor. One soil sample was submitted under chain-of-custody control to the independent laboratory for VOC, SVOC, PCB, and MI 10 Metals analysis.

A single soil boring was also drilled exterior to the building adjacent to the sanitary sewer line from the building to the connection with the municipal main line at the street. AKT Peerless used the utility location markings as guidance for this location, as well as the location of the lines in the building. Soil was sampled and inspected to a depth of eight feet bgs. One soil sample was submitted under chain-of-custody control to the independent laboratory for VOC, SVOC, PCB, and MI 10 Metals analysis.

AKT Peerless used manual hand auger and hydraulic drive/direct-push (Geoprobe®) sampling techniques and followed the drilling procedures outlined in ASTM publication D 6282-98 “Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations” to complete two of the soil borings. AKT Peerless collected continuous soil samples from the soil borings in four-foot intervals to the maximum depth explored of 8 feet bgs.

Refer to Figure 2 for a site map with soil boring locations. AKT Peerless’ boring logs are provided in Appendix A.

3.1.5 Deviations from the Scope of Work

AKT Peerless prepared a Phase II Environmental Site Assessment Scope of Work (SOW), which was approved by the LBRA and Prudential Huntoon representatives. In completing field activities, the following deviations from the approved SOW were made:

- Soil samples collected from the suspected underground heating oil tank location test pit were additionally analyzed for the presence of Michigan 10 metals based on the soil conditions (i.e., urban fill) encountered.
- Soil samples collected from the dental office sanitary system were additionally analyzed for the presence of VOCs, SVOCs, PCBs, and Michigan 10 metals based on the soil conditions (i.e., urban fill) encountered.

3.2 Quality Assurance/Quality Control

To ensure the accuracy of data collected during on site activities, AKT Peerless implemented proper quality assurance/quality control (QA/QC) measures. The QA/QC procedures included, but were not limited to, (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

3.2.1 Decontamination of Equipment

During sample collection, AKT Peerless adhered to proper decontamination procedures. Reusable sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent;
- Rinsing the equipment; and,
- Air-drying the equipment.

3.2.2 Calibration of Field Equipment

All field instruments were calibrated prior to first use on-site to ensure accuracy. Field instruments utilized during investigation activities at this subject property were a photoionization detector (PID). In addition, regulators were used to regulate soil gas collection flow in the soil gas canisters.

During AKT Peerless' Phase II ESA, a PID was used to screen all soil samples. The PID was maintained in a calibrated condition using 100 ppm isobutylene span gas prior to subsurface investigation work each day.

AKT Peerless used laboratory calibrated regulators attached to the soil gas canisters for collection of the two soil gas samples.

3.2.3 Documentation of Activities

During AKT Peerless' Phase II ESA activities, subject property conditions (i.e., soil boring locations, weather conditions) were documented. AKT Peerless visually inspected the soil and water samples and prepared a geologic log for each soil boring and test pit. The logs include soil characteristics such as (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture and water table depth, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). Soil types were classified in accordance with ASTM publication D-2488 "*Unified Soil Classification System*." All soil, soil gas and water samples

were delivered to a laboratory under chain-of-custody documentation. Refer to Appendix A for AKT Peerless' soil boring and test pit logs. See Figure 2 for site map with soil boring and test pit locations.

3.2.4 Sample Preservation Techniques

AKT Peerless collected soil samples according to USEPA Publication SW-846, "*Test Methods for Evaluating Solid Waste*." Soil and groundwater samples were collected in laboratory-supplied containers, stored on ice or at approximately 4 degrees Celsius, and submitted under chain-of-custody documentation.

Soil samples collected for volatile analyses were field preserved with methanol in accordance with U.S. EPA Method 5035. Soil samples collected for polynuclear aromatic hydrocarbons (PNAs), and metals analyses were stored in unpreserved, 4-ounce wide-mouth jars.

Water samples collected for volatile organic compound analyses were collected with zero headspace into 40 ml glass vials and preserved with hydrochloric acid. Water samples for metal analyses were collected into 500 mL plastic bottles and preserved with nitric acid. Water samples collected for analysis of SVOCs/PNAs and PCBs were collected into unpreserved one-liter amber glass bottles.

Soil gas samples were all collected in one-liter soil gas canisters using regulators with pre-set flow rates of 150 to 200 mL per minute.

3.3 Laboratory Analysis and Methods

The laboratory analyzed the samples for: (1) VOCs, including BTEX and TMBs, in accordance with USEPA Method 8260B (soil and water) or TO-15 (soil gas); (2) SVOCs, including PNAs, in accordance with USEPA Method 8270C (soil and water);(3) PCBs in accordance with USEPA Method 8082A (water); and (4) MI 10 metals in accordance with USEPA Method 6020 and 7471 (soil and water).

4.0 Evaluation and Presentation of Results

4.1 Subsurface Conditions

The following sections summarize the physical soil and water conditions at the subject property.

4.1.1 Soil and Groundwater Conditions based on Field Observations

During drilling and test pitting activities, AKT Peerless encountered the following soil types at the subject property within the depth of exploration (up to eight feet bgs):

- URBAN FILL from below ground surface or concrete to approximately eight feet bgs. The fill consists of a fine to medium grain, clayey sand or clay matrix with varying amounts of wood, brick and concrete debris.

AKT Peerless did not encounter groundwater within the depths of exploration for the work activities conducted in this Phase II ESA. Refer to Appendix A for copies of the soil boring logs.

4.2 Laboratory Analytical Results

AKT Peerless collected soil, soil gas and water samples for the purpose of determining if the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended. The samples were also collected and analyzed to identify requirements related to management and disposal of materials from the subject property that will be associated with proposed building demolitions.

For purposes of screening the soil analytical data, the analytical results were compared with MDEQ Part 201 Residential Cleanup Criteria (RCC) provided in MDEQ Remediation and Redevelopment Division's Operational Memorandum No. 1, Tables 1 and 2 and the screening levels in *Guidance Document for the Vapor Intrusion Pathway* (MDEQ Remediation and Redevelopment Division, May 2013).

The water samples from the YMCA building basement were also compared to the Part 201 RCC to identify potential discharge concerns. Specifically, they were compared to the groundwater-surface water interface (GSI) criteria to evaluate potential water discharge options. The water samples from the dentist sanitary system (i.e., drain trap samples) were reviewed relative to EPA disposal requirements.

4.2.1 Soil Analytical Results

AKT Peerless submitted four soil samples for laboratory analysis of VOCs, SVOCs, PCBs, and/or MI 10 metals. The results of the laboratory analyses of the soil samples are summarized in the table below:

Table 4-1 Summary of Soil Analytical Results

Parameter	Chemical Abstract Service (CAS) Number	Sample Identification with Criteria Exceedance (depth)	Part 201 Residential Criteria Exceeded/Established Criteria (ug/kg)	Maximum Concentration (μg/kg)/Sample Location
Chromium	7440-47-3	VS-1 (North) (5') VS-2 (South) (5') AKT-SB-1 (1.5') AKT-SB-2 (7-8')	GSIP/3,300	21,000/AKT-SB-1 (1.5')
Mercury	7439-97-6	VS-1 (North) (5') VS-2 (South) (5') AKT-SB-1 (1.5')	DWP/1,700 GSIP/50	1,800/AKT-SB-1 (1.5')
Selenium	7782-49-2	VS-1 (North) (5') VS-2 (South) (5') AKT-SB-1 (1.5') AKT-SB-2 (7-8')	GSIP/400	3,400/AKT-SB-1 (1.5')

Notes:

Sample identification: SB-# indicates soil boring and (#-#) indicates sample depth in feet.

μg/kg – micrograms per kilogram

DWP – Drinking Water Protection Criteria

GSIP – Groundwater-Surface Water Interface Protection Criteria

Arsenic, barium, cadmium, copper, lead, and zinc were detected in soil at concentrations greater than the statewide default background levels but less than the MDEQ Part 201 RCC and do not pose an

environmental concern to the subject property. Refer to Figure 3 for a site map with soil analytical results exceeding MDEQ Part 201 criteria. Refer to Table 1 in the attachments for a summary of soil analytical results. Refer to Appendix B for a complete analytical laboratory report.

4.2.2 Water Analytical Results

AKT Peerless submitted water samples for laboratory analysis of VOCs, SVOCs, PCBs, and/or MI 10 metals. The results of the laboratory analyses of the water samples are summarized in the table below:

Table 4-2 Summary of Water Analytical Results

Parameter	Chemical Abstract Service (CAS) Number	Sample Identification	Maximum Concentration ($\mu\text{g}/\text{L}$)/Sample Location
Arsenic	7440-38-2	SB-2 Basement Water SB-3 Basement Water	7.9/SB-3 Basement Water
Cadmium	7440-43-9	SB-1 Basement Water SB-3 Basement Water	3.1/SB-3 Basement Water
Copper	7440-50-8	SB-1 Basement Water SB-2 Basement Water SB-3 Basement Water	38/SB-2 Basement Water
Lead	7439-92-1	SB-2 Basement Water SB-3 Basement Water	33/SB-3 Basement Water
Mercury	7439-97-6	Trap #1, Trap #3 Trap #4, Trap #5	140/Trap #3
Silver	7440-22-4	Trap #1, Trap #2 Trap #3, Trap #4 Trap #5	570/Trap #3
Trichloroethylene	79-01-6	SB-1 Basement Water SB-2 Basement Water	2.5/SB-1 Basement Water

Notes:

$\mu\text{g}/\text{kg}$ – micrograms per kilogram

Refer to Tables 2 and 3 in the attachments for a summary of water analytical results. Refer to Appendix B for a complete analytical laboratory report. AKT Peerless is in the process of evaluating the applicable permitting and disposal requirements relative to the above summarized data.

4.2.3 Soil Gas Analytical Results

AKT Peerless submitted two soil gas samples for laboratory analysis of VOCs. The results of the laboratory analyses of the soil gas samples identified the presence of 13 VOCs. The constituents that were detected are consistent with those found in urban environments with extensive urban filling and utility corridors. Comparison of the soil gas concentrations to the Vapor Intrusion Deep Soil Gas

Screening Levels (SG_{VI-res}) from the MDEQ May 2013 guidance indicates there are no exceedances of these recommended levels. In addition, it should be noted that prior soil sampling conducted in this area did not identify the presence of contaminant constituents in soil at concentrations exceeding Part 201 Residential Volatilization to Indoor Air Inhalation Criteria (SVIIC). Refer to Table 4 in the attachments for a summary of soil gas analytical results. Refer to Appendix B for a complete analytical laboratory report.

5.0 Summary, Conclusions, and Recommendations

The following sections summarize the investigation conducted by AKT Peerless at the subject property.

5.1 Summary of Subsurface Investigation

On May 21, 2014 and June 2, 2014, AKT Peerless conducted a Phase II ESA investigation at the subject property to further evaluate environmental concerns identified during previous environmental investigations. AKT Peerless (1) drilled/logged/field screened four soil borings, (2) excavated one test pit, (3) installed two soil gas sampling points, (4) collected soil and soil gas samples for laboratory analyses, and (5) collected water samples from both the dental office sink traps and basement of the former YMCA building. AKT Peerless submitted soil and water samples for laboratory analyses of select parameters, including VOCs, SVOCs, PCBs, and/or some or all of the MI 10 metals. Soil gas samples were submitted for laboratory analysis of VOCs.

5.2 Conclusions

AKT Peerless conducted soil, water, and soil gas sampling in areas most likely to be impacted by contaminants based on the past use of the subject property. The results of the investigation indicate the following:

- Neither an underground heating oil tank or any appurtenances thereof were identified on the east side of the former YMCA building at the test pit location. No additional work activities are recommended for this REC #3.
- Chromium (VS-1 (North), VS-2 (South), AKT-SB-1, and AKT-SB-2), mercury (VS-1 (North), VS-2 (South), and AKT-SB-1), and selenium (VS-1 (North), VS-2 (South), AKT-SB-1, and AKT-SB-2) were detected in subsurface soils at four locations on the subject property at concentrations exceeding the MDEQ Part 201 RCC, including drinking water protection and/or groundwater-surface water interface protection. These contaminant constituents are likely associated with the presence of urban fill materials at the subject property. The presence of these impacted soils will be accounted for in construction activity planning and residual material management strategies.
- Arsenic (SB-2 Basement Water and SB-3 Basement Water), cadmium (SB-1 Basement Water and SB-3 Basement Water), copper (SB-1 Basement Water, SB-2 Basement Water, and SB-3 Basement Water), lead (SB-2 Basement Water and SB-3 Basement Water), and trichloroethylene (SB-1 Basement Water and SB-2 Basement Water) were detected in the water of the basement of the YMCA building at the subject property.

The analytical data will be utilized to determine the proper permitting, management and disposal requirements for the YMCA basement water. In addition, subsequent to the completion of dewatering of the basement in the future, AKT Peerless will conduct a thorough visual inspection of the basement levels in accordance with HUD and ASTM standards to address REC

#2 . An amendment letter will be issued with the results of the inspection, as well as any recommendations for additional activities.

- Mercury (Trap #1, Trap #3, Trap #4, and Trap #5) and silver (Trap #1, Trap #2, Trap #3, Trap #4, and Trap #5) were detected in the dental office sink traps at the subject property. The analytical data will be utilized to determine the proper permitting, management and disposal requirements for the sanitary system in the dental office to address REC #4.
- Soil gas concentrations identified at the location of the former machine shop are below the applicable MDEQ Guidance Vapor Intrusion Deep Soil Gas screening levels. AKT Peerless does not recommend additional activities related to REC #1 at this time.

Based on laboratory analytical results from the previous investigations and the soil sampling and analysis described in this report, the subject property meets the definition of a *facility*, as defined in Part 201 of the Natural Resources and Environmental Protection Act, Michigan Public Act (PA) 451, 1994, as amended. Inclusive of the analytical data obtained by other consultants during investigations in 2012, Parcels A and B at the subject property are each a facility.

5.3 Recommendations

AKT Peerless recommends the following for the future owner/operator(s) at the subject property.

5.3.1 Future Owner(s)/Operator(s)

AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA) report. Section 26(1)(c) of Part 201 provides certain liability protections to a person who becomes an owner or operator of a *facility* on, or after June 5, 1995 if they comply with both of the following, or unless other defenses apply: a BEA is conducted prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure; and the owner or operator discloses the results of the BEA to the MDEQ and subsequent purchaser or transferee.

In addition, because the subject property meets the definition of a facility, AKT Peerless recommends conducting a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations both during and after constructions. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to the MDEQ and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.

- Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

A future owner/operator may be required to conduct additional subsurface investigation to further evaluate relevant exposure pathways at the subject property in connection with known contamination to comply with due care obligations.

6.0 Limitations

The information and opinions obtained in this report are for the exclusive use of Prudential Huntoon Paige Associates and Y-Site, LLC. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without your written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Any third parties who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and Prudential Huntoon Paige Associates and Y-Site, LLC.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by Prudential Huntoon Paige Associates and Y-Site, LLC or third parties is complete or accurate.

7.0 Signatures of Environmental Professionals

The following individuals contributed to the completion of this report.



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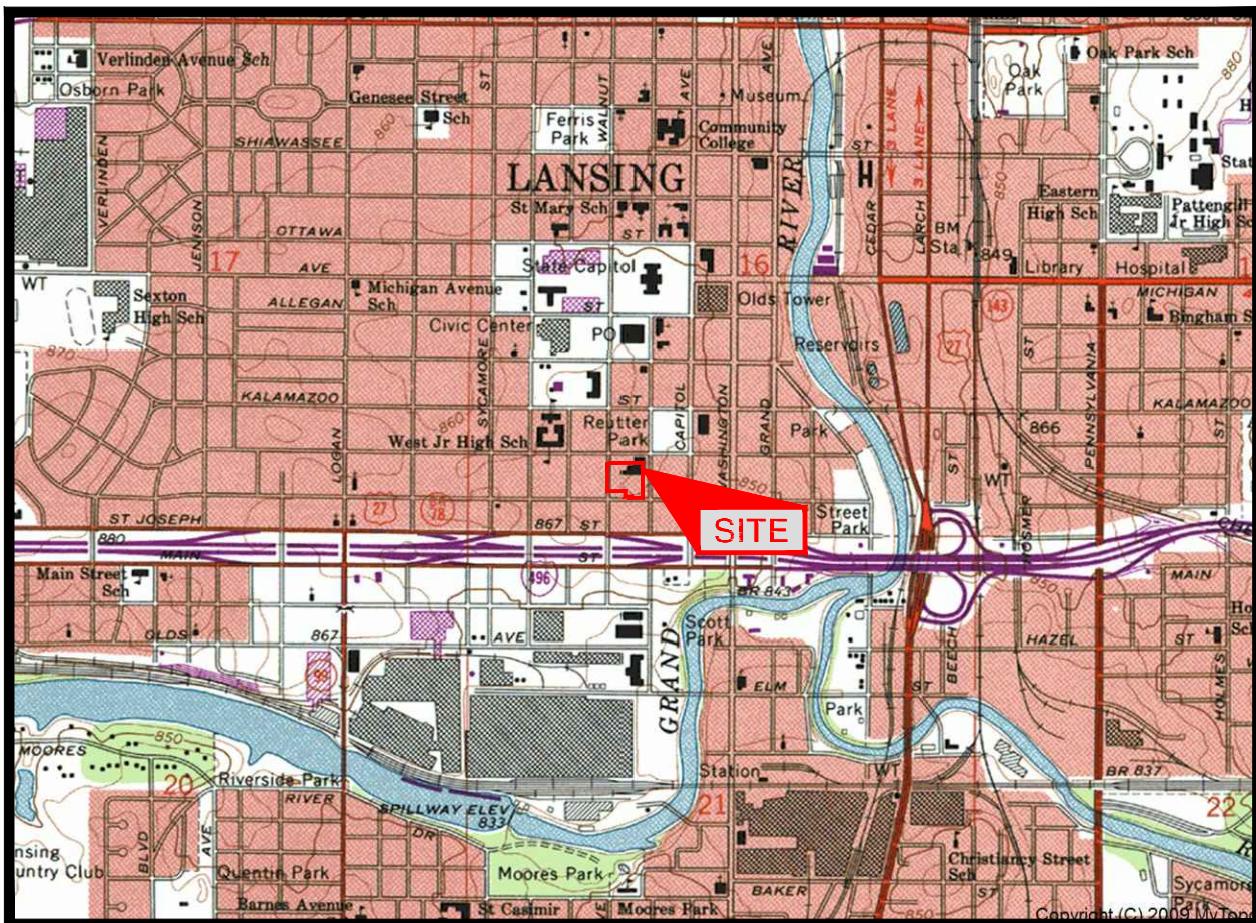
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Figures

LANSING SOUTH QUADRANGLE

MICHIGAN - INGHAM COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.4 N.-R.2 W.



MICHIGAN
QUADRANGLE LOCATION



IMAGE TAKEN FROM 1965 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1973

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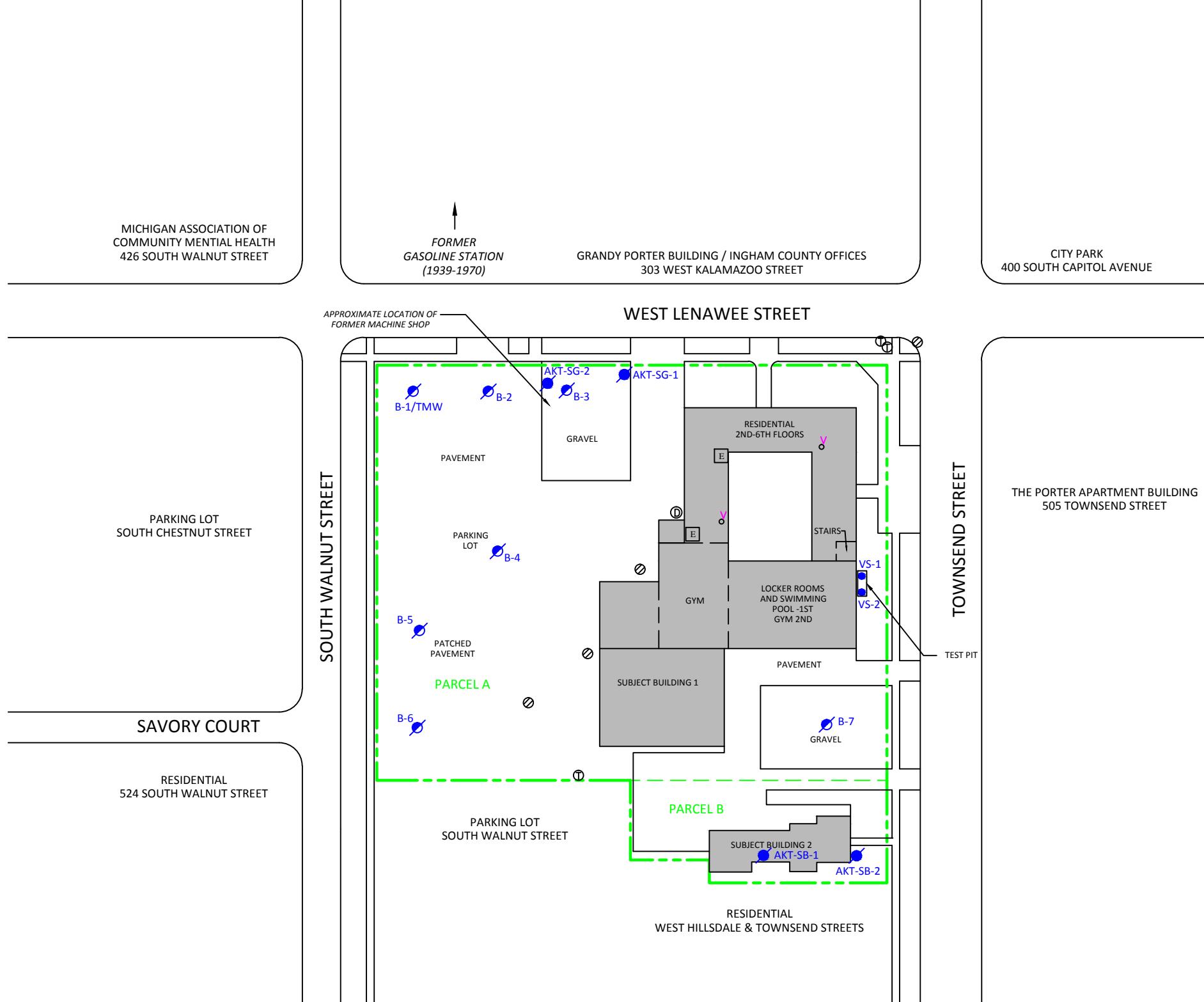
OHIO

TOPOGRAPHIC LOCATION MAP

301 WEST LENAWEE STREET AND
526 AND SUB-ADDRESS 524 TOWNSEND STREET
LANSING, MICHIGAN
PROJECT NUMBER : 5700L2-8-20

DRAWN BY: OGO
DATE: 06/11/2014

FIGURE 1



N
E
W
S

DRAWN BY: OGO
DATE: 06/11/2014
0 40 80
SCALE: 1" = 80'

FIGURE 2

SAMPLE LOCATION MAP

301 WEST LENAWEE STREET AND
LANSING, MICHIGAN
PROJECT NUMBER : 570012-8-20

526 AND SUB-ADDRESS 524 TOWNSEND STREET

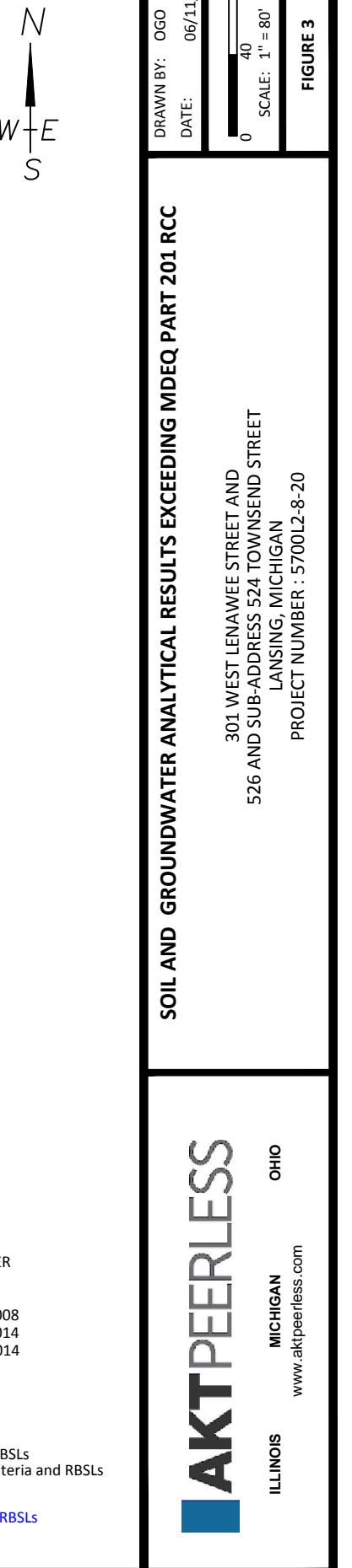
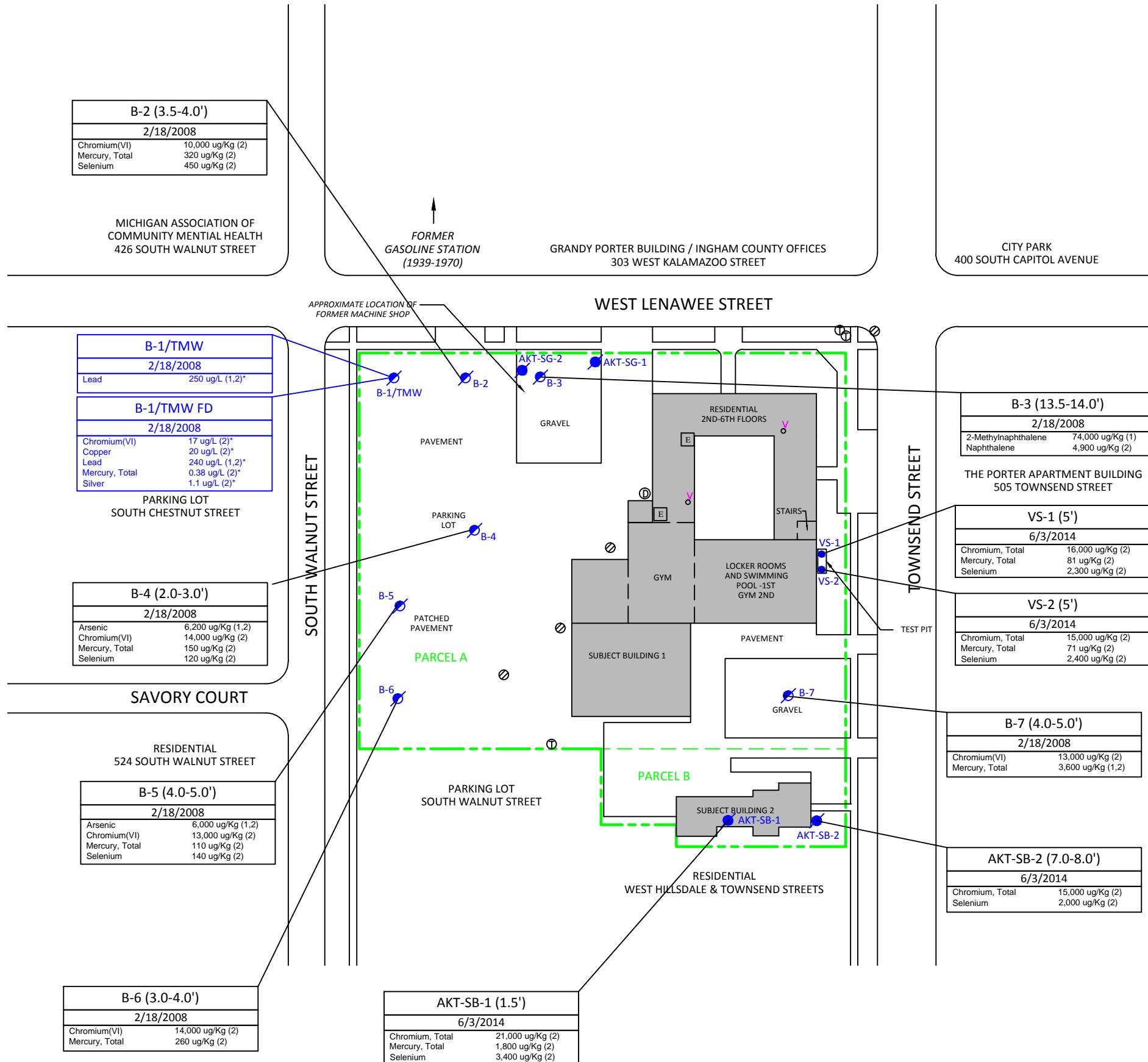
LANSING, MICHIGAN

PROJECT NUMBER : 570012-8-20

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Tables

Table 1
Summary of Soil Analytical Results
524 and 526 Townsend Street and 301 Lenawee Street
Lansing, Michigan
AKT Peerless Project No. 5700L2-8-20

Guidesheet Number →	#10	#11	#12	#14	#19							
Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria and RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs	Residential Direct Contact Criteria and RBSLs	Maximum Concentration Detected	Sample Location	VS-1 (North)	VS-2 (South)	AKT-SB-1	AKT-SB-2
								Collection Date	6/3/2014	6/3/2014	6/3/2014	6/3/2014
								Depth (feet bgs)	5'	5'	1.5'	7-8'
Metals ug/Kg												
Mercury, Total	7439-97-6	130	1,700	50 (M); 1.2*	48,000	1.6E+5	1,800		81	71	1,800	< 50
Arsenic	7440-38-2	5,800	4,600	4,600	NLV	7,600	6,200		4,100	2,700	4,400	6,200
Barium (B)	7440-39-3	75,000	1.3E+6	(G)	NLV	3.7E+7	110,000		64,000	57,000	110,000	44,000
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	5.5E+5	2,500		< 200	200	2,500	< 200
Chromium, Total	7440-47-3	18,000 (total)	30,000	3,300	NLV	2.5E+6	21,000		16,000	15,000	21,000	15,000
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	NLV	2.0E+7	27,000		13,000	11,000	27,000	12,000
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	NLV	4.0E+5	59,000		23,000	35,000	59,000	6,100
Selenium (B)	7782-49-2	410	4,000	400	NLV	2.6E+6	3,400		2,300	2,400	3,400	2,000
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27*	NLV	2.5E+6	<100		< 100	< 100	< 100	< 100
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	NLV	1.7E+8	290,000		42,000	50,000	290,000	26,000
Polychlorinated Biphenyls, PCBs ug/Kg												
								PCBs were not detected at concentrations greater than the laboratory method detection limit				
Semivolatile, SVOCs ug/Kg												
								SVOCs were not detected at concentrations greater than the laboratory method detection limit				
Volatile, VOCs ug/Kg												
								VOCs were not detected at concentrations greater than the laboratory method detection limit				

Table 2
Summary of Water Analytical Results - Sub Basement
301 Lenawee Street
Lansing, Michigan
AKT Peerless Project No. 5700L3-8-20

Guidesheet Number	→	#3				
Parameters*	Chemical Abstract Service Number	Groundwater Surface Water Interface Protection Criteria and RBSLs	Sample Location	SB-1 Basement Water	SB-2 Basement Water	SB-3 Basement Water
			Collection Date	5/21/2014	5/21/2014	5/21/2014
<i>*(Refer to detailed laboratory report for method reference data)</i>						
Metals ug/L						
Arsenic	7440-38-2	10		< 5	7.7	7.9
Barium (B)	7440-39-3	(G)		<100	<100	< 100
Cadmium (B)	7440-43-9	(G,X)		1.4	< 1	3.1
Chromium, Total	7440-47-3	11		< 10	< 10	< 10
Copper (B)	7440-50-8	(G)		9.6	38	27
Lead (B)	7439-92-1	(G,X)		< 3	4	33
Selenium (B)	7782-49-2	5.0		< 5	< 5	< 5
Silver (B)	7440-22-4	0.2 (M); 0.06		< 0.2	< 0.2	< 0.2
Zinc (B)	7440-66-6	(G)		700	400	1,900
PCBs ug/L	PCBs were not detected at concentrations greater than the laboratory method detection limits					
Semivolatiles, PNAs ug/L	SVOCs were not detected at concentrations greater than the laboratory method detection limits					
Volatiles, VOCs ug/L						
Trichloroethylene	79-01-6	200 (X)		2.5	2.4	< 1

Table 3
Summary of Water Analytical Results - Sink Traps
524 and 526 Townsend Street
Lansing, Michigan
AKT Peerless Project No. 5700L3-8-20

Guidesheet Number →							
Parameters*	Chemical Abstract Service Number	Sample Location	Trap # 1	Trap # 2	Trap # 3	Trap # 4	Trap # 5
		Collection Date	5/21/2014	5/21/2014	5/21/2014	5/21/2014	5/21/2014
<i>*(Refer to detailed laboratory report for method reference data)</i>							
Metals ug/L							
Mercury, Total	7439-97-6		22	<0.2	140	0.23	86
Silver (B)	7440-22-4		96	0.27	570	0.34	260

Table 4, Summary of Soil Gas Analytical Results
301 Lenawee Street
Lansing, MI
AKT Project No. 5700L2-8-20

Hazardous Substance (a)	Chemical Abstract Service Number	Soil Gas (SGVI-Res)		Maximum Concentration Detected (ppbv)	Sample Location	AKT-SG-1	AKT-SG-2
		Residential Vapor Intrusion Deep Soil Gas Screening Levels (b)				Collection Date	6/2/2014
		($\mu\text{g}/\text{m}^3$)	(ppbv) _(c)	Depth	5 ft.	5 ft.	
Volatile Organic Compounds (VOCs)						(ppbv)	(ppbv)
Acetone	67641	2.1E+06	8.2E+05	28		8.2	28
Benzene	71432	1.1E+03	3.2E+02	23		15	23
2-Butanone (MEK)	78933	1.7E+06	5.6E+05	61		61	41
Cyclohexane	110827	2.1E+06	5.8E+05	14		<5	14
1,3-Dichlorobenzene	541731	1.0E+03	1.6E+02	110		<5	110
Ethylbenzene	100414	2.9E+04	6.4E+03	5.1		5.1	<5
n-Heptane	142825	1.2E+06	2.8E+05	11		8.8	11
n-Hexane	110543	2.4E+05	6.6E+04	110		76	110
4-Methyl-2-pentanone (MIBK)	108101	1.0E+06	2.4E+05	8.2		8.2	5.8
Toluene	108883	1.7E+06	4.4E+05	43		38	43
1,2,4-Trimethylbenzene	95636	7.6E+04	1.5E+04	5.4		5.4	<5
m,p-Xylenes	1330207	3.5E+04	7.6E+03	17		17	17
o-Xylenes	1330207	3.5E+04	7.6E+03	6.2		6.2	5.7

Footnotes:

(a) - Part 201 Hazardous substances without inhalation toxicity values at this time are not included in this table.

(b) - The IAVI and SGVI preset in this table are health-based values. The applicable IAVI and SGVI are based on the higher of the health-based value and the appropriate analytical reporting limit.

(c) - Conversion from $\mu\text{g}/\text{m}^3$ to parts per billion by volume (ppbv) uses this equation: $\text{ppbv} = ([\mu\text{g}/\text{m}^3] \times (283.15^\circ\text{K})) / 12.187 \times \text{Molecular Weight(f/mol)}$

(e) - TCE IURs for different scenarios as follows: Residential mutagenic = 1.0E-06; Residential cancer = 3.1E-06; Nonresidential cancer = 4.1E-06 (see EPA VISL calculator). IRIS suggests that the kidney risk be assessed using he mutagenic equations and the liver and non-Hodgkin lymphoma (NHL) be addressed using the standard cancer equations. In order to generate cancer-based RSLs for land uses involving multiple age receptors using the RSL calculator, multiple steps need to be performed. <http://www.epa.gov/oswer/riskassessment/sghandbook/chemicals.htm>

"ID" - means "insufficient data" to develop a criterion at the date of publication of these tables (5/23/2013)

- (A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.
- (B) Background, as defined in R 299.1(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.
- (C) The criterion developed under R 299.20 to R 299.26 exceeds the chemical-specific soil saturation screening level (C_{sat}). The person proposing or implementing response activity shall document whether additional response activity is required to control free-phase liquids or NAPL to protect against risks associated with free-phase liquids by using methods appropriate for the free-phase liquids present. Development of a site-specific C_{sat} or methods presented in R 299.22, R 299.24(S), and R 299.26(8) may be conducted for the relevant exposure pathways.
- (D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or $1.0E+9$ parts per billion (ppb).
- (E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value [as provided in the table in Footnote (E) in R 299.49].
- (F) Criterion is based on adverse impacts to plant life and phytotoxicity.
- (G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg CaCO₃/L, use 400 mg CaCO₃/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HDV). The soil GSI protection criteria for these hazardous substances are the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote. [See table in Footnote (G) in R 299.49.]
- (H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.
- (I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules.
- (J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.
- (K) Hazardous substance may be flammable or explosive, or both.
- (L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(9) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the need for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable concentrations of site-specific soil and drinking water concentrations are presented in the [table in Footnote (L) in R 299.49].
- (M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
- (N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.
- (O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.14 to R 299.26. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.
- (P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Nonresidential direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.
- (Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.
- (R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules.
- (S) Criterion defaults to the hazardous substance-specific water solubility limit.
- (T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable. [See table in Footnote (T) in R 299.49.]
- (U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules.
- (V) Criterion is the aesthetic drinking water value as required by Section 20120a(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) and 20120b of the NREPA.
- (W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.
- (X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the [table in Footnote (X) in R 299.49], except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in [the table in Footnote (G) in R 299.49]. Soil protection criteria based on the HDV shall be as listed in the [table in Footnote (X) in R 299.49], except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.
- (Y) Source size modifiers shown in the [table in Footnote (Y) in R 299.49] shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion. See Footnote (C) in R 299.49.
- (Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.
- (AA) Use 10,000 ug/L where groundwater enters a structure through the use of a water well, sump or other device. Use 28,000 ug/L for all other uses.
- (BB) The state drinking water standard for asbestos (fibers greater than 10 micrometers in length) is in units of a million fibers per liter of water (MFL). Soil concentrations of asbestos are determined by polarized light microscopy.
- (CC) **Groundwater:** The generic GSI criteria are based on the toxicity of unionized ammonia (NH₃); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH₃ in the surface water. This percent NH₃ is a function of the pH and temperature of the receiving surface water and can be estimated using the [table in Footnote (CC) in R 299.49], taken from Emerson, et al., *Journal of the Fisheries Research Board of Canada*, Volume 32(12):2382, 1975. The generic approach for estimating NH₃ assumes a default pH of 8 and default temperatures of 68 °F and 85 °F for cold water and warm water surface water, respectively. The resulting NH₃ is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH₃-N) concentration in the groundwater and the resulting NH₃ concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the [table in Footnote (CC) in R 299.49], a lower percent unionized ammonia concentration for comparison to the generic GSI.
Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.
- (DD) Hazardous substance causes developmental effects. Residential direct contact criteria are protective of both prenatal and postnatal exposure. Nonresidential direct contact criteria are protective for a pregnant adult receptor.
- (EE) The values listed in the table in Footnote (EE) in R 299.49 are applicable generic GSI criteria as required by Section 20120e of the NREPA.
- (FF) The chloride GSI criterion shall be 125 mg/L when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/L when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.
- (GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and nonresidential land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m³.
- (HH) The residential criterion for sodium is 230,000 ug/L in accordance with the Sodium Advisory Council recommendation and revised Groundwater Discharge Standards.
- ID Insufficient data to develop criterion.
- NA A criterion or value is not available or, in the case of background and CAS numbers, not applicable.
- NLL Hazardous substance is not likely to leach under most soil conditions.
- NLV Hazardous substance is not likely to volatilize under most conditions.
- ug/kg Micrograms per kilogram
- ug/L Micrograms per liter
- NS Not sampled
- BDL Below Laboratory Method Detection Limits
- BOLD** Exceeds highlighted criteria.

Appendix A

Soil Boring Logs

FF-2 BORING LOG

						TEST PIT LOG Y-Site 301 Lenawee Street Lansing, MI 5700L2-8-20		Test Pit No. 1	
								Drawn By: JG Date: 06/02/14	
EXCAVATING COMPANY: Youngs Environmental Cleanup TECHNICIAN: NA DATE DRILLED: 06/02/14 METHOD: Excavator FIELD GEOLOGIST: Josh Gekeler						WEATHER: Sunny, cool EXCAVATION DEPTH: 5' bgs DEPTH TO GW: NA SCREEN INTERVAL: NA SCREEN MATERIAL: NA			
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION		MOISTURE	TEMPORARY WELL DIAGRAM
0-2	2	100	0	Dark Brown	Topsoil to 0.3'			Moist	
2-4	4		0	Brown	CLAYEY SAND, Fine-Medium grain, trace Silt, Brick, Concrete				
4-6	6	100			EOB @ 5.0' bgs				
6-8	8								
8-10	10								
10-12	12								
12-14	14								
14-16	16								
16-18	18								
18-20	20								

FF-2 BORING LOG

						BORING LOG	AKT-SB-1	
						Y-Site 301 Lenawee Street Lansing, MI 5700L2-8-20	Drawn By: JG Date: 06/02/14	
DRILLING COMPANY:			AKT Peerless			WEATHER:	Sunny, cool	
TECHNICIAN:			Bill Fox			BORING DEPTH:	2' bgs	
DATE DRILLED:			06/02/14			DEPTH TO GW:	NA	
DRILLING METHOD:			Direct Push			SCREEN INTERVAL:	NA	
FIELD GEOLOGIST:			Josh Gekeler			SCREEN MATERIAL:	NA	
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION		TEMPORARY WELL DIAGRAM
0-2	2-4	100	0	SP	Brown	Concrete to 0.3' SAND, Fine-Medium grain, little Silt, trace Gravel		
2	4					EOB @ 2.0' bgs		
4-6	6							
6-8	8							
8-10	10							
10-12	12							
12-14	14							
14-16	16							
16-18	18							
18-20	20							

FF-2 BORING LOG

AKT PEERLESS						BORING LOG	AKT-SB-2		
						Y-Site 301 Lenawee Street Lansing, MI 5700L2-8-20	Drawn By: JG Date: 06/02/14		
DRILLING COMPANY:			AKT Peerless			WEATHER:	Sunny, cool		
TECHNICIAN:			Bill Fox			BORING DEPTH:	8' bgs		
DATE DRILLED:			06/02/14			DEPTH TO GW:	NA		
DRILLING METHOD:			Direct Push			SCREEN INTERVAL:	NA		
FIELD GEOLOGIST:			Josh Gekeler			SCREEN MATERIAL:	NA		
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION		MOISTURE	TEMPORARY WELL DIAGRAM
						GEOLOGIC DESCRIPTION			
						Topsoil to 0.3'			
0-2		100	0	SC	Brown	CLAYEY SAND, Fine-Medium grain, little Silt,		Moist	
2			0						
2-4			0						
4			0						
4-6		100	0	CL	Brown	CLAY, little Fine Sand		Moist	
6			0						
6-8			0						
8						EOB @ 8.0'			
8-10									
10									
10-12									
12									
12-14									
14									
14-16									
16									
18									
20									

FF-2 BORING LOG



FF-2 BORING LOG

						BORING LOG Y-Site 301 Lenawee Street Lansing, MI 5700L2-8-20		AKT-SG-2 Drawn By: JG Date: 06/02/14				
DRILLING COMPANY:			AKT Peerless			WEATHER:						
TECHNICIAN:			Bill Fox			Sunny, cool						
DATE DRILLED:			06/02/14			BORING DEPTH:						
DRILLING METHOD:			Direct Push			5' bgs						
FIELD GEOLOGIST:			Josh Gekeler			DEPTH TO GW:						
						NA						
						SCREEN INTERVAL:						
						NA						
						SCREEN MATERIAL:						
						NA						
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION			MOISTURE	TEMPORARY WELL DIAGRAM		
0-2		100	0	CL	Brown	Topsoil to 0.3' CLAY, little Sand, Silt, medium soft			Moist			
2				SP	Brown/Gray	SAND, little Silt, trace Clay, medium loose			Moist			Teflon Tubing
4			0									
4-6			0									
6						EOB @ 5.0' bgs						
6-8												
8												
8-10												
10												
10-12												
12												
12-14												
14												
14-16												
16												
18												
20												

Appendix B

Laboratory Analytical Reports



10-Jun-2014

Joshua Gekeler
AKT Peerless Environmental Services
1000 S Washington
Suite 104
Lansing, MI 48933

Re: **5700L3**

Work Order: **1406114**

Dear Joshua,

ALS Environmental received 5 samples on 03-Jun-2014 04:15 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 48.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Joseph Ribar".

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: AKT Peerless Environmental Services
Project: 5700L3
Work Order: 1406114

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1406114-01	VS-1 (North) 5'	Soil		6/2/2014 10:15	6/3/2014 16:15	<input type="checkbox"/>
1406114-02	VS-2 (South) 5'	Soil		6/2/2014 10:30	6/3/2014 16:15	<input type="checkbox"/>
1406114-03	AKT-SB-1 1.5'	Soil		6/2/2014 12:53	6/3/2014 16:15	<input type="checkbox"/>
1406114-04	AKT-SB-2 7-8'	Soil		6/2/2014 13:05	6/3/2014 16:15	<input type="checkbox"/>
1406114-05	Trip Blank	Soil		6/2/2014	6/3/2014 16:15	<input type="checkbox"/>

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-01

Client Sample ID: VS-1 (North) 5'
Collection Date: 6/2/2014 10:15:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1221	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1232	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1242	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1248	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1254	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1260	ND	330	330		µg/Kg-dry	1	6/7/2014
Surr: Decachlorobiphenyl	88.1	40-140			%REC	1	6/7/2014
Surr: Tetrachloro-m-xylene	90.1	45-124			%REC	1	6/7/2014
MERCURY BY CVAA							
Mercury	81	50	50		µg/Kg-dry	1	6/6/2014
METALS BY ICP-MS							
Arsenic	4,100	2,000	100		µg/Kg-dry	5	6/5/2014
Barium	64,000	2,000	1,000		µg/Kg-dry	5	6/5/2014
Cadmium	ND	200	200		µg/Kg-dry	5	6/5/2014
Chromium	16,000	2,000	2,000		µg/Kg-dry	5	6/5/2014
Copper	13,000	2,000	1,000		µg/Kg-dry	5	6/5/2014
Lead	23,000	2,000	1,000		µg/Kg-dry	5	6/5/2014
Selenium	2,300	820	200		µg/Kg-dry	5	6/5/2014
Silver	ND	490	100		µg/Kg-dry	5	6/5/2014
Zinc	42,000	4,100	1,000		µg/Kg-dry	5	6/5/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,2-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,3-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,4-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4,5-Trichlorophenol	ND	300	300		µg/Kg-dry	1	6/5/2014
2,4,6-Trichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dimethylphenol	ND	380	330		µg/Kg-dry	1	6/5/2014
2,4-Dinitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
2,4-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,6-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chloronaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-01

Client Sample ID: VS-1 (North) 5'
Collection Date: 6/2/2014 10:15:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
2-Nitrophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
3,3'-Dichlorobenzidine	ND	2,000	2,000		µg/Kg-dry	1	6/5/2014
3-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4,6-Dinitro-2-methylphenol	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Bromophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chloro-3-methylphenol	ND	280	280		µg/Kg-dry	1	6/5/2014
4-Chloroaniline	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chlorophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Nitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
Acenaphthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Acenaphthylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(b)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(g,h,i)perylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(k)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethoxy)methane	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethyl)ether	ND	100	100		µg/Kg-dry	1	6/5/2014
Bis(2-chloroisopropyl)ether	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-ethylhexyl)phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Butyl benzyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Carbazole	ND	330	330		µg/Kg-dry	1	6/5/2014
Chrysene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzo(a,h)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzofuran	ND	330	330		µg/Kg-dry	1	6/5/2014
Diethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Dimethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-butyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-octyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluorene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobutadiene	ND	190	50		µg/Kg-dry	1	6/5/2014
Hexachlorocyclopentadiene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/5/2014
Indeno(1,2,3-cd)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Isophorone	ND	330	330		µg/Kg-dry	1	6/5/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-01

Client Sample ID: VS-1 (North) 5'
Collection Date: 6/2/2014 10:15:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Nitrobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodi-n-propylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodiphenylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
Pentachlorophenol	ND	190	20		µg/Kg-dry	1	6/5/2014
Phenanthrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Phenol	ND	330	330		µg/Kg-dry	1	6/5/2014
Pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
<i>Surr: 2,4,6-Tribromophenol</i>	74.9	34-140			%REC	1	6/5/2014
<i>Surr: 2-Fluorobiphenyl</i>	70.3	12-100			%REC	1	6/5/2014
<i>Surr: 2-Fluorophenol</i>	77.6	33-117			%REC	1	6/5/2014
<i>Surr: 4-Terphenyl-d14</i>	97.8	25-137			%REC	1	6/5/2014
<i>Surr: Nitrobenzene-d5</i>	61.9	37-107			%REC	1	6/5/2014
<i>Surr: Phenol-d6</i>	79.0	40-106			%REC	1	6/5/2014
VOLATILE ORGANIC COMPOUNDS		SW8260B		Prep Date: 6/5/2014		Analyst: AK	
1,1,1,2-Tetrachloroethane	ND	100	100		µg/Kg-dry	1	6/8/2014
1,1,1-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/8/2014
1,1,2,2-Tetrachloroethane	ND	50	50		µg/Kg-dry	1	6/8/2014
1,1,2-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/8/2014
1,1,2-Trichlorotrifluoroethane	ND	100	100		µg/Kg-dry	1	6/8/2014
1,1-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/8/2014
1,1-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/8/2014
1,2,3-Trichloroproppane	ND	100	100		µg/Kg-dry	1	6/8/2014
1,2,4-Trichlorobenzene	ND	250	250		µg/Kg-dry	1	6/8/2014
1,2,4-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/8/2014
1,2-Dibromo-3-chloropropane	ND	35	10		µg/Kg-dry	1	6/8/2014
1,2-Dibromoethane	ND	35	20		µg/Kg-dry	1	6/8/2014
1,2-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/8/2014
1,2-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/8/2014
1,2-Dichloropropane	ND	50	50		µg/Kg-dry	1	6/8/2014
1,3,5-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/8/2014
1,3-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/8/2014
1,4-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/8/2014
2-Butanone	ND	750	750		µg/Kg-dry	1	6/8/2014
2-Hexanone	ND	2,500	2,500		µg/Kg-dry	1	6/8/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/8/2014
4-Methyl-2-pentanone	ND	2,500	2,500		µg/Kg-dry	1	6/8/2014
Acetone	ND	1,000	1,000		µg/Kg-dry	1	6/8/2014
Acrylonitrile	ND	120	100		µg/Kg-dry	1	6/8/2014
Benzene	ND	50	50		µg/Kg-dry	1	6/8/2014
Bromochloromethane	ND	100	100		µg/Kg-dry	1	6/8/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-01

Client Sample ID: VS-1 (North) 5'
Collection Date: 6/2/2014 10:15:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	100	100		µg/Kg-dry	1	6/8/2014
Bromoform	ND	100	100		µg/Kg-dry	1	6/8/2014
Bromomethane	ND	200	200		µg/Kg-dry	1	6/8/2014
Carbon disulfide	ND	250	250		µg/Kg-dry	1	6/8/2014
Carbon tetrachloride	ND	50	50		µg/Kg-dry	1	6/8/2014
Chlorobenzene	ND	50	50		µg/Kg-dry	1	6/8/2014
Chloroethane	ND	250	250		µg/Kg-dry	1	6/8/2014
Chloroform	ND	50	50		µg/Kg-dry	1	6/8/2014
Chloromethane	ND	250	250		µg/Kg-dry	1	6/8/2014
cis-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/8/2014
cis-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/8/2014
Dibromochloromethane	ND	100	100		µg/Kg-dry	1	6/8/2014
Dibromomethane	ND	250	250		µg/Kg-dry	1	6/8/2014
Dichlorodifluoromethane	ND	250	250		µg/Kg-dry	1	6/8/2014
Diethyl ether	ND	200	200		µg/Kg-dry	1	6/8/2014
Ethylbenzene	ND	50	50		µg/Kg-dry	1	6/8/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/8/2014
Isopropylbenzene	ND	250	250		µg/Kg-dry	1	6/8/2014
m,p-Xylene	ND	100	100		µg/Kg-dry	1	6/8/2014
Methyl iodide	ND	100	100		µg/Kg-dry	1	6/8/2014
Methyl tert-butyl ether	ND	250	250		µg/Kg-dry	1	6/8/2014
Methylene chloride	ND	100	100		µg/Kg-dry	1	6/8/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/8/2014
n-Propylbenzene	ND	100	100		µg/Kg-dry	1	6/8/2014
o-Xylene	ND	50	50		µg/Kg-dry	1	6/8/2014
Styrene	ND	50	50		µg/Kg-dry	1	6/8/2014
Tetrachloroethene	ND	50	50		µg/Kg-dry	1	6/8/2014
Toluene	ND	100	100		µg/Kg-dry	1	6/8/2014
trans-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/8/2014
trans-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/8/2014
trans-1,4-Dichloro-2-butene	ND	50	50		µg/Kg-dry	1	6/8/2014
Trichloroethene	ND	50	50		µg/Kg-dry	1	6/8/2014
Trichlorofluoromethane	ND	100	100		µg/Kg-dry	1	6/8/2014
Vinyl acetate	ND	5,000	5,000		µg/Kg-dry	1	6/8/2014
Vinyl chloride	ND	40	40		µg/Kg-dry	1	6/8/2014
Xylenes, Total	ND	150	150		µg/Kg-dry	1	6/8/2014
Surr: 1,2-Dichloroethane-d4	93.9	70-130			%REC	1	6/8/2014
Surr: 4-Bromofluorobenzene	101	70-130			%REC	1	6/8/2014
Surr: Dibromofluoromethane	93.8	70-130			%REC	1	6/8/2014
Surr: Toluene-d8	91.2	70-130			%REC	1	6/8/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 10-Jun-14

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-01

Client Sample ID: VS-1 (North) 5'
Collection Date: 6/2/2014 10:15:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MOISTURE Moisture	14	0.050	A2540 G 0	% of sample		1	Analyst: TM 6/4/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-02

Client Sample ID: VS-2 (South) 5'
Collection Date: 6/2/2014 10:30:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1221	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1232	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1242	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1248	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1254	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1260	ND	330	330		µg/Kg-dry	1	6/7/2014
Surr: Decachlorobiphenyl	102	40-140			%REC	1	6/7/2014
Surr: Tetrachloro-m-xylene	99.1	45-124			%REC	1	6/7/2014
MERCURY BY CVAA							
Mercury	71	50	50		µg/Kg-dry	1	6/6/2014
METALS BY ICP-MS							
Arsenic	2,700	2,300	100		µg/Kg-dry	5	6/5/2014
Barium	57,000	2,300	1,000		µg/Kg-dry	5	6/5/2014
Cadmium	200	200	200		µg/Kg-dry	5	6/5/2014
Chromium	15,000	2,300	2,000		µg/Kg-dry	5	6/5/2014
Copper	11,000	2,300	1,000		µg/Kg-dry	5	6/5/2014
Lead	35,000	2,300	1,000		µg/Kg-dry	5	6/5/2014
Selenium	2,400	940	200		µg/Kg-dry	5	6/5/2014
Silver	ND	560	100		µg/Kg-dry	5	6/5/2014
Zinc	50,000	4,700	1,000		µg/Kg-dry	5	6/5/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,2-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,3-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,4-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4,5-Trichlorophenol	ND	300	300		µg/Kg-dry	1	6/5/2014
2,4,6-Trichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dimethylphenol	ND	380	330		µg/Kg-dry	1	6/5/2014
2,4-Dinitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
2,4-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,6-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chloronaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-02

Client Sample ID: VS-2 (South) 5'
Collection Date: 6/2/2014 10:30:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
2-Nitrophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
3,3'-Dichlorobenzidine	ND	2,000	2,000		µg/Kg-dry	1	6/5/2014
3-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4,6-Dinitro-2-methylphenol	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Bromophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chloro-3-methylphenol	ND	280	280		µg/Kg-dry	1	6/5/2014
4-Chloroaniline	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chlorophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Nitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
Acenaphthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Acenaphthylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(b)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(g,h,i)perylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(k)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethoxy)methane	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethyl)ether	ND	100	100		µg/Kg-dry	1	6/5/2014
Bis(2-chloroisopropyl)ether	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-ethylhexyl)phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Butyl benzyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Carbazole	ND	330	330		µg/Kg-dry	1	6/5/2014
Chrysene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzo(a,h)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzofuran	ND	330	330		µg/Kg-dry	1	6/5/2014
Diethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Dimethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-butyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-octyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluorene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobutadiene	ND	190	50		µg/Kg-dry	1	6/5/2014
Hexachlorocyclopentadiene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/5/2014
Indeno(1,2,3-cd)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Isophorone	ND	330	330		µg/Kg-dry	1	6/5/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-02

Client Sample ID: VS-2 (South) 5'
Collection Date: 6/2/2014 10:30:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Nitrobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodi-n-propylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodiphenylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
Pentachlorophenol	ND	190	20		µg/Kg-dry	1	6/5/2014
Phenanthrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Phenol	ND	330	330		µg/Kg-dry	1	6/5/2014
Pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
<i>Surr: 2,4,6-Tribromophenol</i>	75.2	34-140			%REC	1	6/5/2014
<i>Surr: 2-Fluorobiphenyl</i>	65.5	12-100			%REC	1	6/5/2014
<i>Surr: 2-Fluorophenol</i>	77.3	33-117			%REC	1	6/5/2014
<i>Surr: 4-Terphenyl-d14</i>	98.4	25-137			%REC	1	6/5/2014
<i>Surr: Nitrobenzene-d5</i>	59.5	37-107			%REC	1	6/5/2014
<i>Surr: Phenol-d6</i>	78.1	40-106			%REC	1	6/5/2014
VOLATILE ORGANIC COMPOUNDS		SW8260B		Prep Date: 6/5/2014		Analyst: RS	
1,1,1,2-Tetrachloroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1,1-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2,2-Tetrachloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichlorotrifluoroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2,3-Trichloroproppane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2,4-Trichlorobenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
1,2,4-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dibromo-3-chloropropane	ND	35	10		µg/Kg-dry	1	6/7/2014
1,2-Dibromoethane	ND	35	20		µg/Kg-dry	1	6/7/2014
1,2-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2-Dichloropropane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,3,5-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,3-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,4-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
2-Butanone	ND	750	750		µg/Kg-dry	1	6/7/2014
2-Hexanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
4-Methyl-2-pentanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
Acetone	ND	1,000	1,000		µg/Kg-dry	1	6/7/2014
Acrylonitrile	ND	120	100		µg/Kg-dry	1	6/7/2014
Benzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Bromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-02

Client Sample ID: VS-2 (South) 5'
Collection Date: 6/2/2014 10:30:00 AM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromoform	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromomethane	ND	200	200		µg/Kg-dry	1	6/7/2014
Carbon disulfide	ND	250	250		µg/Kg-dry	1	6/7/2014
Carbon tetrachloride	ND	50	50		µg/Kg-dry	1	6/7/2014
Chlorobenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloroethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Chloroform	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
cis-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
cis-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
Dibromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Dibromomethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Dichlorodifluoromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Diethyl ether	ND	200	200		µg/Kg-dry	1	6/7/2014
Ethylbenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/7/2014
Isopropylbenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
m,p-Xylene	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl iodide	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl tert-butyl ether	ND	250	250		µg/Kg-dry	1	6/7/2014
Methylene chloride	ND	100	100		µg/Kg-dry	1	6/7/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
n-Propylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
o-Xylene	ND	50	50		µg/Kg-dry	1	6/7/2014
Styrene	ND	50	50		µg/Kg-dry	1	6/7/2014
Tetrachloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Toluene	ND	100	100		µg/Kg-dry	1	6/7/2014
trans-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,4-Dichloro-2-butene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichlorofluoromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Vinyl acetate	ND	5,000	5,000		µg/Kg-dry	1	6/7/2014
Vinyl chloride	ND	40	40		µg/Kg-dry	1	6/7/2014
Xylenes, Total	ND	150	150		µg/Kg-dry	1	6/7/2014
Surr: 1,2-Dichloroethane-d4	94.9	70-130			%REC	1	6/7/2014
Surr: 4-Bromofluorobenzene	104	70-130			%REC	1	6/7/2014
Surr: Dibromofluoromethane	93.9	70-130			%REC	1	6/7/2014
Surr: Toluene-d8	93.5	70-130			%REC	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 10-Jun-14

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-02

Client Sample ID: VS-2 (South) 5'
Collection Date: 6/2/2014 10:30:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MOISTURE Moisture	15	0.050	A2540 G 0	% of sample		1	Analyst: TM 6/4/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-03

Client Sample ID: AKT-SB-1 1.5'
Collection Date: 6/2/2014 12:53:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1221	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1232	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1242	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1248	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1254	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1260	ND	330	330		µg/Kg-dry	1	6/7/2014
Surr: Decachlorobiphenyl	149	40-140		S	%REC	1	6/7/2014
Surr: Tetrachloro-m-xylene	91.1	45-124			%REC	1	6/7/2014
MERCURY BY CVAA							
Mercury	1,800	170	50		µg/Kg-dry	10	6/6/2014
METALS BY ICP-MS							
Arsenic	4,400	2,400	100		µg/Kg-dry	5	6/5/2014
Barium	110,000	2,400	1,000		µg/Kg-dry	5	6/5/2014
Cadmium	2,500	200	200		µg/Kg-dry	5	6/5/2014
Chromium	21,000	2,400	2,000		µg/Kg-dry	5	6/5/2014
Copper	27,000	2,400	1,000		µg/Kg-dry	5	6/5/2014
Lead	59,000	2,400	1,000		µg/Kg-dry	5	6/5/2014
Selenium	3,400	940	200		µg/Kg-dry	5	6/5/2014
Silver	ND	570	100		µg/Kg-dry	5	6/5/2014
Zinc	290,000	4,700	1,000		µg/Kg-dry	5	6/5/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,2-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,3-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,4-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4,5-Trichlorophenol	ND	300	300		µg/Kg-dry	1	6/5/2014
2,4,6-Trichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dimethylphenol	ND	400	330		µg/Kg-dry	1	6/5/2014
2,4-Dinitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
2,4-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,6-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chloronaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-03

Client Sample ID: AKT-SB-1 1.5'
Collection Date: 6/2/2014 12:53:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
2-Nitrophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
3,3'-Dichlorobenzidine	ND	2,000	2,000		µg/Kg-dry	1	6/5/2014
3-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4,6-Dinitro-2-methylphenol	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Bromophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chloro-3-methylphenol	ND	280	280		µg/Kg-dry	1	6/5/2014
4-Chloroaniline	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chlorophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Nitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
Acenaphthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Acenaphthylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(b)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(g,h,i)perylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(k)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethoxy)methane	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethyl)ether	ND	100	100		µg/Kg-dry	1	6/5/2014
Bis(2-chloroisopropyl)ether	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-ethylhexyl)phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Butyl benzyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Carbazole	ND	330	330		µg/Kg-dry	1	6/5/2014
Chrysene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzo(a,h)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzofuran	ND	330	330		µg/Kg-dry	1	6/5/2014
Diethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Dimethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-butyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-octyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluorene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobutadiene	ND	190	50		µg/Kg-dry	1	6/5/2014
Hexachlorocyclopentadiene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/5/2014
Indeno(1,2,3-cd)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Isophorone	ND	330	330		µg/Kg-dry	1	6/5/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-03

Client Sample ID: AKT-SB-1 1.5'
Collection Date: 6/2/2014 12:53:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Nitrobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodi-n-propylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodiphenylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
Pentachlorophenol	ND	190	20		µg/Kg-dry	1	6/5/2014
Phenanthrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Phenol	ND	330	330		µg/Kg-dry	1	6/5/2014
Pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
<i>Surr: 2,4,6-Tribromophenol</i>	80.3	34-140			%REC	1	6/5/2014
<i>Surr: 2-Fluorobiphenyl</i>	72.2	12-100			%REC	1	6/5/2014
<i>Surr: 2-Fluorophenol</i>	75.2	33-117			%REC	1	6/5/2014
<i>Surr: 4-Terphenyl-d14</i>	111	25-137			%REC	1	6/5/2014
<i>Surr: Nitrobenzene-d5</i>	59.9	37-107			%REC	1	6/5/2014
<i>Surr: Phenol-d6</i>	73.6	40-106			%REC	1	6/5/2014
VOLATILE ORGANIC COMPOUNDS		SW8260B		Prep Date: 6/5/2014		Analyst: RS	
1,1,1,2-Tetrachloroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1,1-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2,2-Tetrachloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichlorotrifluoroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2,3-Trichloroproppane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2,4-Trichlorobenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
1,2,4-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dibromo-3-chloropropane	ND	37	10		µg/Kg-dry	1	6/7/2014
1,2-Dibromoethane	ND	37	20		µg/Kg-dry	1	6/7/2014
1,2-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2-Dichloropropane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,3,5-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,3-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,4-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
2-Butanone	ND	750	750		µg/Kg-dry	1	6/7/2014
2-Hexanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
4-Methyl-2-pentanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
Acetone	ND	1,000	1,000		µg/Kg-dry	1	6/7/2014
Acrylonitrile	ND	120	100		µg/Kg-dry	1	6/7/2014
Benzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Bromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-03

Client Sample ID: AKT-SB-1 1.5'
Collection Date: 6/2/2014 12:53:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromoform	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromomethane	ND	200	200		µg/Kg-dry	1	6/7/2014
Carbon disulfide	ND	250	250		µg/Kg-dry	1	6/7/2014
Carbon tetrachloride	ND	50	50		µg/Kg-dry	1	6/7/2014
Chlorobenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloroethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Chloroform	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
cis-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
cis-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
Dibromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Dibromomethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Dichlorodifluoromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Diethyl ether	ND	200	200		µg/Kg-dry	1	6/7/2014
Ethylbenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/7/2014
Isopropylbenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
m,p-Xylene	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl iodide	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl tert-butyl ether	ND	250	250		µg/Kg-dry	1	6/7/2014
Methylene chloride	ND	100	100		µg/Kg-dry	1	6/7/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
n-Propylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
o-Xylene	ND	50	50		µg/Kg-dry	1	6/7/2014
Styrene	ND	50	50		µg/Kg-dry	1	6/7/2014
Tetrachloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Toluene	ND	100	100		µg/Kg-dry	1	6/7/2014
trans-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,4-Dichloro-2-butene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichlorofluoromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Vinyl acetate	ND	5,000	5,000		µg/Kg-dry	1	6/7/2014
Vinyl chloride	ND	40	40		µg/Kg-dry	1	6/7/2014
Xylenes, Total	ND	150	150		µg/Kg-dry	1	6/7/2014
Surr: 1,2-Dichloroethane-d4	96.2	70-130			%REC	1	6/7/2014
Surr: 4-Bromofluorobenzene	103	70-130			%REC	1	6/7/2014
Surr: Dibromofluoromethane	93.2	70-130			%REC	1	6/7/2014
Surr: Toluene-d8	93.4	70-130			%REC	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 10-Jun-14

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-03

Client Sample ID: AKT-SB-1 1.5'
Collection Date: 6/2/2014 12:53:00 PM
Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MOISTURE Moisture	18	0.050	A2540 G 0	% of sample		1	Analyst: TM 6/4/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-04

Client Sample ID: AKT-SB-2 7-8'
Collection Date: 6/2/2014 1:05:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1221	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1232	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1242	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1248	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1254	ND	330	330		µg/Kg-dry	1	6/7/2014
Aroclor 1260	ND	330	330		µg/Kg-dry	1	6/7/2014
Surr: Decachlorobiphenyl	91.1	40-140			%REC	1	6/7/2014
Surr: Tetrachloro-m-xylene	86.1	45-124			%REC	1	6/7/2014
MERCURY BY CVAA							
Mercury	ND	50	50		µg/Kg-dry	1	6/6/2014
METALS BY ICP-MS							
Arsenic	6,200	2,200	100		µg/Kg-dry	5	6/5/2014
Barium	44,000	2,200	1,000		µg/Kg-dry	5	6/5/2014
Cadmium	ND	200	200		µg/Kg-dry	5	6/5/2014
Chromium	15,000	2,200	2,000		µg/Kg-dry	5	6/5/2014
Copper	12,000	2,200	1,000		µg/Kg-dry	5	6/5/2014
Lead	6,100	2,200	1,000		µg/Kg-dry	5	6/5/2014
Selenium	2,000	870	200		µg/Kg-dry	5	6/5/2014
Silver	ND	520	100		µg/Kg-dry	5	6/5/2014
Zinc	26,000	4,300	1,000		µg/Kg-dry	5	6/5/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,2-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,3-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
1,4-Dichlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4,5-Trichlorophenol	ND	300	300		µg/Kg-dry	1	6/5/2014
2,4,6-Trichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dichlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2,4-Dimethylphenol	ND	360	330		µg/Kg-dry	1	6/5/2014
2,4-Dinitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
2,4-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2,6-Dinitrotoluene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chloronaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Chlorophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
2-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-04

Client Sample ID: AKT-SB-2 7-8'
Collection Date: 6/2/2014 1:05:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
2-Nitrophenol	ND	330	330		µg/Kg-dry	1	6/5/2014
3,3'-Dichlorobenzidine	ND	2,000	2,000		µg/Kg-dry	1	6/5/2014
3-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4,6-Dinitro-2-methylphenol	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Bromophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chloro-3-methylphenol	ND	280	280		µg/Kg-dry	1	6/5/2014
4-Chloroaniline	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Chlorophenyl phenyl ether	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Methylphenol	ND	330	330		µg/Kg-dry	1	6/5/2014
4-Nitroaniline	ND	830	830		µg/Kg-dry	1	6/5/2014
4-Nitrophenol	ND	830	830		µg/Kg-dry	1	6/5/2014
Acenaphthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Acenaphthylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(a)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(b)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(g,h,i)perylene	ND	330	330		µg/Kg-dry	1	6/5/2014
Benzo(k)fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethoxy)methane	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-chloroethyl)ether	ND	100	100		µg/Kg-dry	1	6/5/2014
Bis(2-chloroisopropyl)ether	ND	330	330		µg/Kg-dry	1	6/5/2014
Bis(2-ethylhexyl)phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Butyl benzyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Carbazole	ND	330	330		µg/Kg-dry	1	6/5/2014
Chrysene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzo(a,h)anthracene	ND	330	330		µg/Kg-dry	1	6/5/2014
Dibenzofuran	ND	330	330		µg/Kg-dry	1	6/5/2014
Diethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Dimethyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-butyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Di-n-octyl phthalate	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluoranthene	ND	330	330		µg/Kg-dry	1	6/5/2014
Fluorene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachlorobutadiene	ND	180	50		µg/Kg-dry	1	6/5/2014
Hexachlorocyclopentadiene	ND	330	330		µg/Kg-dry	1	6/5/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/5/2014
Indeno(1,2,3-cd)pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Isophorone	ND	330	330		µg/Kg-dry	1	6/5/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/5/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-04

Client Sample ID: AKT-SB-2 7-8'
Collection Date: 6/2/2014 1:05:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Nitrobenzene	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodi-n-propylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
N-Nitrosodiphenylamine	ND	330	330		µg/Kg-dry	1	6/5/2014
Pentachlorophenol	ND	180	20		µg/Kg-dry	1	6/5/2014
Phenanthrene	ND	330	330		µg/Kg-dry	1	6/5/2014
Phenol	ND	330	330		µg/Kg-dry	1	6/5/2014
Pyrene	ND	330	330		µg/Kg-dry	1	6/5/2014
<i>Surr: 2,4,6-Tribromophenol</i>	78.6	34-140			%REC	1	6/5/2014
<i>Surr: 2-Fluorobiphenyl</i>	75.3	12-100			%REC	1	6/5/2014
<i>Surr: 2-Fluorophenol</i>	85.7	33-117			%REC	1	6/5/2014
<i>Surr: 4-Terphenyl-d14</i>	113	25-137			%REC	1	6/5/2014
<i>Surr: Nitrobenzene-d5</i>	68.2	37-107			%REC	1	6/5/2014
<i>Surr: Phenol-d6</i>	82.1	40-106			%REC	1	6/5/2014
VOLATILE ORGANIC COMPOUNDS		SW8260B		Prep Date: 6/5/2014		Analyst: RS	
1,1,1,2-Tetrachloroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1,1-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2,2-Tetrachloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichlorotrifluoroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2,3-Trichloroproppane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2,4-Trichlorobenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
1,2,4-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dibromo-3-chloropropane	ND	34	10		µg/Kg-dry	1	6/7/2014
1,2-Dibromoethane	ND	34	20		µg/Kg-dry	1	6/7/2014
1,2-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2-Dichloropropane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,3,5-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,3-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,4-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
2-Butanone	ND	750	750		µg/Kg-dry	1	6/7/2014
2-Hexanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
4-Methyl-2-pentanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
Acetone	ND	1,000	1,000		µg/Kg-dry	1	6/7/2014
Acrylonitrile	ND	110	100		µg/Kg-dry	1	6/7/2014
Benzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Bromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-04

Client Sample ID: AKT-SB-2 7-8'
Collection Date: 6/2/2014 1:05:00 PM

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromoform	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromomethane	ND	200	200		µg/Kg-dry	1	6/7/2014
Carbon disulfide	ND	250	250		µg/Kg-dry	1	6/7/2014
Carbon tetrachloride	ND	50	50		µg/Kg-dry	1	6/7/2014
Chlorobenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloroethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Chloroform	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
cis-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
cis-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
Dibromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Dibromomethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Dichlorodifluoromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Diethyl ether	ND	200	200		µg/Kg-dry	1	6/7/2014
Ethylbenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/7/2014
Isopropylbenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
m,p-Xylene	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl iodide	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl tert-butyl ether	ND	250	250		µg/Kg-dry	1	6/7/2014
Methylene chloride	ND	100	100		µg/Kg-dry	1	6/7/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
n-Propylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
o-Xylene	ND	50	50		µg/Kg-dry	1	6/7/2014
Styrene	ND	50	50		µg/Kg-dry	1	6/7/2014
Tetrachloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Toluene	ND	100	100		µg/Kg-dry	1	6/7/2014
trans-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,4-Dichloro-2-butene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichlorofluoromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Vinyl acetate	ND	5,000	5,000		µg/Kg-dry	1	6/7/2014
Vinyl chloride	ND	40	40		µg/Kg-dry	1	6/7/2014
Xylenes, Total	ND	150	150		µg/Kg-dry	1	6/7/2014
Surr: 1,2-Dichloroethane-d4	96.0	70-130			%REC	1	6/7/2014
Surr: 4-Bromofluorobenzene	103	70-130			%REC	1	6/7/2014
Surr: Dibromofluoromethane	94.0	70-130			%REC	1	6/7/2014
Surr: Toluene-d8	94.3	70-130			%REC	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 10-Jun-14

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-04

Client Sample ID: AKT-SB-2 7-8'
Collection Date: 6/2/2014 1:05:00 PM
Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MOISTURE Moisture	11	0.050	A2540 G 0	% of sample		1	Analyst: TM 6/4/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-05

Client Sample ID: Trip Blank
Collection Date: 6/2/2014

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS							
1,1,1,2-Tetrachloroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1,1-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2,2-Tetrachloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1,2-Trichlorotrifluoroethane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,1-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2,3-Trichloropropane	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2,4-Trichlorobenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
1,2,4-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dibromo-3-chloropropane	ND	30	10		µg/Kg-dry	1	6/7/2014
1,2-Dibromoethane	ND	30	20		µg/Kg-dry	1	6/7/2014
1,2-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,2-Dichloroethane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,2-Dichloropropane	ND	50	50		µg/Kg-dry	1	6/7/2014
1,3,5-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,3-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
1,4-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
2-Butanone	ND	750	750		µg/Kg-dry	1	6/7/2014
2-Hexanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
4-Methyl-2-pentanone	ND	2,500	2,500		µg/Kg-dry	1	6/7/2014
Acetone	ND	1,000	1,000		µg/Kg-dry	1	6/7/2014
Acrylonitrile	ND	100	100		µg/Kg-dry	1	6/7/2014
Benzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Bromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromodichloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromoform	ND	100	100		µg/Kg-dry	1	6/7/2014
Bromomethane	ND	200	200		µg/Kg-dry	1	6/7/2014
Carbon disulfide	ND	250	250		µg/Kg-dry	1	6/7/2014
Carbon tetrachloride	ND	50	50		µg/Kg-dry	1	6/7/2014
Chlorobenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloroethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Chloroform	ND	50	50		µg/Kg-dry	1	6/7/2014
Chloromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
cis-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
cis-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
Dibromochloromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Dibromomethane	ND	250	250		µg/Kg-dry	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 10-Jun-14

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3
Lab ID: 1406114-05

Client Sample ID: Trip Blank
Collection Date: 6/2/2014

Matrix: SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND	250	250		µg/Kg-dry	1	6/7/2014
Diethyl ether	ND	200	200		µg/Kg-dry	1	6/7/2014
Ethylbenzene	ND	50	50		µg/Kg-dry	1	6/7/2014
Hexachloroethane	ND	300	300		µg/Kg-dry	1	6/7/2014
Isopropylbenzene	ND	250	250		µg/Kg-dry	1	6/7/2014
m,p-Xylene	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl iodide	ND	100	100		µg/Kg-dry	1	6/7/2014
Methyl tert-butyl ether	ND	250	250		µg/Kg-dry	1	6/7/2014
Methylene chloride	ND	100	100		µg/Kg-dry	1	6/7/2014
Naphthalene	ND	330	330		µg/Kg-dry	1	6/7/2014
n-Propylbenzene	ND	100	100		µg/Kg-dry	1	6/7/2014
o-Xylene	ND	50	50		µg/Kg-dry	1	6/7/2014
Styrene	ND	50	50		µg/Kg-dry	1	6/7/2014
Tetrachloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Toluene	ND	100	100		µg/Kg-dry	1	6/7/2014
trans-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	6/7/2014
trans-1,4-Dichloro-2-butene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichloroethene	ND	50	50		µg/Kg-dry	1	6/7/2014
Trichlorofluoromethane	ND	100	100		µg/Kg-dry	1	6/7/2014
Vinyl acetate	ND	5,000	5,000		µg/Kg-dry	1	6/7/2014
Vinyl chloride	ND	40	40		µg/Kg-dry	1	6/7/2014
Xylenes, Total	ND	150	150		µg/Kg-dry	1	6/7/2014
Surr: 1,2-Dichloroethane-d4	96.0	70-130			%REC	1	6/7/2014
Surr: 4-Bromofluorobenzene	102	70-130			%REC	1	6/7/2014
Surr: Dibromofluoromethane	92.2	70-130			%REC	1	6/7/2014
Surr: Toluene-d8	93.3	70-130			%REC	1	6/7/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Project: 5700L3
WorkOrder: 1406114

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59415** Instrument ID **GC14** Method: **SW8082**

Mblk		Sample ID: PBLKS1-59415-59415			Units: µg/Kg		Analysis Date: 6/7/2014 04:59 PM			
Client ID:		Run ID: GC14_140607A			SeqNo: 2799408		Prep Date: 6/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	83								
Aroclor 1221	ND	83								
Aroclor 1232	ND	83								
Aroclor 1242	ND	83								
Aroclor 1248	ND	83								
Aroclor 1254	ND	83								
Aroclor 1260	ND	83								
Surr: Decachlorobiphenyl	32	0	33.3	0	96.1	40-140		0		
Surr: Tetrachloro-m-xylene	31.67	0	33.3	0	95.1	45-124		0		

LCS		Sample ID: PLCSS1-59415-59415			Units: µg/Kg		Analysis Date: 6/7/2014 05:16 PM			
Client ID:		Run ID: GC14_140607A			SeqNo: 2799409		Prep Date: 6/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	934	83	833	0	112	50-130		0		
Aroclor 1260	911	83	833	0	109	50-130		0		
Surr: Decachlorobiphenyl	33	0	33.3	0	99.1	40-140		0		
Surr: Tetrachloro-m-xylene	32.67	0	33.3	0	98.1	45-124		0		

MS		Sample ID: 1406049-02A MS			Units: µg/Kg		Analysis Date: 6/7/2014 05:48 PM			
Client ID:		Run ID: GC14_140607A			SeqNo: 2799411		Prep Date: 6/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	946.5	81	807.8	0	117	40-140		0		
Aroclor 1260	949.8	81	807.8	0	118	40-140		0		
Surr: Decachlorobiphenyl	32.33	0	32.29	0	100	40-140		0		
Surr: Tetrachloro-m-xylene	31.68	0	32.29	0	98.1	45-124		0		

MSD		Sample ID: 1406049-02A MSD			Units: µg/Kg		Analysis Date: 6/7/2014 06:04 PM			
Client ID:		Run ID: GC14_140607A			SeqNo: 2799413		Prep Date: 6/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	927.2	81	810.2	0	114	40-140	946.5	2.06	50	
Aroclor 1260	916.9	81	810.2	0	113	40-140	949.8	3.52	50	
Surr: Decachlorobiphenyl	31.12	0	32.39	0	96.1	40-140	32.33	3.79	50	
Surr: Tetrachloro-m-xylene	30.48	0	32.39	0	94.1	45-124	31.68	3.88	50	

The following samples were analyzed in this batch:	1406114-01B	1406114-02B	1406114-03B
	1406114-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59361** Instrument ID **HG1** Method: **SW7471**

MLK				Sample ID: MLK-59361-59361			Units: mg/Kg		Analysis Date: 6/6/2014 10:57 AM			
Client ID:		Run ID: HG1_140606A		SeqNo: 2796642			Prep Date: 6/5/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Mercury	ND		0.020									
LCS				Sample ID: LCS-59361-59361			Units: mg/Kg		Analysis Date: 6/6/2014 10:59 AM			
Client ID:		Run ID: HG1_140606A		SeqNo: 2796643			Prep Date: 6/5/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Mercury	0.1698	0.020	0.1665		0	102	80-120		0			
MS				Sample ID: 1406114-04BMS			Units: mg/Kg		Analysis Date: 6/6/2014 11:04 AM			
Client ID: AKT-SB-2 7-8'		Run ID: HG1_140606A		SeqNo: 2796645			Prep Date: 6/5/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Mercury	0.1472	0.014	0.1154	0.02049	110	75-125			0			
MSD				Sample ID: 1406114-04BMSD			Units: mg/Kg		Analysis Date: 6/6/2014 11:06 AM			
Client ID: AKT-SB-2 7-8'		Run ID: HG1_140606A		SeqNo: 2796646			Prep Date: 6/5/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Mercury	0.1337	0.014	0.1167	0.02049	97	75-125	0.1472	9.63	35			

The following samples were analyzed in this batch:

1406114-01B 1406114-02B 1406114-03B
1406114-04B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59351** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-59351-59351			Units: mg/Kg		Analysis Date: 6/6/2014 04:37 PM			
Client ID:		Run ID: ICPMS1_140606A			SeqNo: 2797672		Prep Date: 6/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	ND	0.25								
Copper	0.0808	0.25								J
Lead	0.01618	0.25								J
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.3132	0.50								J

MBLK		Sample ID: MBLK-59351-59351			Units: mg/Kg		Analysis Date: 6/7/2014 12:05 PM			
Client ID:		Run ID: ICPMS1_140606A			SeqNo: 2797844		Prep Date: 6/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.01645	0.25								J
Cadmium	ND	0.10								

LCS		Sample ID: LCS-59351-59351			Units: mg/Kg		Analysis Date: 6/6/2014 04:43 PM			
Client ID:		Run ID: ICPMS1_140606A			SeqNo: 2797673		Prep Date: 6/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	4.9	0.25	5	0	98	80-120	0			
Copper	4.62	0.25	5	0	92.4	80-120	0			
Lead	4.584	0.25	5	0	91.7	80-120	0			
Silver	4.772	0.25	5	0	95.4	80-120	0			
Zinc	4.234	0.50	5	0	84.7	80-120	0			

LCS		Sample ID: LCS-59351-59351			Units: mg/Kg		Analysis Date: 6/7/2014 12:11 PM			
Client ID:		Run ID: ICPMS1_140606A			SeqNo: 2797845		Prep Date: 6/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.08	0.25	5	0	102	80-120	0			
Barium	4.927	0.25	5	0	98.5	80-120	0			
Cadmium	5.09	0.10	5	0	102	80-120	0			
Selenium	4.938	0.25	5	0	98.8	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59351** Instrument ID **ICPMS1** Method: **SW6020A**

MS	Sample ID: 1406041-04BMS				Units: mg/Kg		Analysis Date: 6/5/2014 06:48 PM			
Client ID:	Run ID: ICPMS1_140605A			SeqNo: 2796002		Prep Date: 6/5/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.164	1.8	7.299	1.702	88.5	75-125		0		
Barium	19.49	1.8	7.299	13.81	77.8	75-125		0		
Cadmium	7.46	0.73	7.299	0.006635	102	75-125		0		
Chromium	11.78	1.8	7.299	3.52	113	75-125		0		
Copper	8.62	1.8	7.299	1.493	97.6	75-125		0		
Lead	9.697	1.8	7.299	2.565	97.7	75-125		0		
Selenium	7.588	1.8	7.299	0.5394	96.6	75-125		0		
Silver	7	1.8	7.299	-0.01688	96.1	75-125		0		
Zinc	14.53	3.6	7.299	6.798	106	75-125		0		

MSD	Sample ID: 1406041-04BMSD				Units: mg/Kg		Analysis Date: 6/5/2014 06:54 PM			
Client ID:	Run ID: ICPMS1_140605A			SeqNo: 2796005		Prep Date: 6/5/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.319	1.8	7.278	1.702	90.9	75-125	8.164	1.88	25	
Barium	19.3	1.8	7.278	13.81	75.4	75-125	19.49	0.987	25	
Cadmium	7.638	0.73	7.278	0.006635	105	75-125	7.46	2.36	25	
Chromium	12.01	1.8	7.278	3.52	117	75-125	11.78	1.91	25	
Copper	8.668	1.8	7.278	1.493	98.6	75-125	8.62	0.552	25	
Lead	10.02	1.8	7.278	2.565	102	75-125	9.697	3.29	25	
Selenium	7.944	1.8	7.278	0.5394	102	75-125	7.588	4.59	25	
Silver	7.209	1.8	7.278	-0.01688	99.3	75-125	7	2.94	25	
Zinc	14.96	3.6	7.278	6.798	112	75-125	14.53	2.9	25	

The following samples were analyzed in this batch:

1406114-01B	1406114-02B	1406114-03B
1406114-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59350** Instrument ID **SVMS6** Method: **SW8270**

MBLK	Sample ID: SBLKS1-59350-59350			Units: µg/Kg		Analysis Date: 6/5/2014 07:19 PM			
Client ID:	Run ID: SVMS6_140605A			SeqNo: 2797155		Prep Date: 6/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	160							
1,2-Dichlorobenzene	ND	160							
1,3-Dichlorobenzene	ND	160							
1,4-Dichlorobenzene	ND	160							
2,4,5-Trichlorophenol	ND	160							
2,4,6-Trichlorophenol	ND	160							
2,4-Dichlorophenol	ND	160							
2,4-Dimethylphenol	ND	330							
2,4-Dinitrophenol	ND	660							
2,4-Dinitrotoluene	ND	160							
2,6-Dinitrotoluene	ND	160							
2-Chloronaphthalene	ND	6.7							
2-Chlorophenol	ND	160							
2-Methylnaphthalene	ND	6.7							
2-Methylphenol	ND	160							
2-Nitroaniline	ND	660							
2-Nitrophenol	ND	160							
3,3'-Dichlorobenzidine	ND	660							
3-Nitroaniline	ND	660							
4,6-Dinitro-2-methylphenol	ND	330							
4-Bromophenyl phenyl ether	ND	160							
4-Chloro-3-methylphenol	ND	160							
4-Chloroaniline	ND	660							
4-Chlorophenyl phenyl ether	ND	160							
4-Methylphenol	ND	160							
4-Nitroaniline	ND	660							
4-Nitrophenol	ND	660							
Acenaphthene	ND	6.7							
Acenaphthylene	ND	6.7							
Anthracene	ND	6.7							
Benzo(a)anthracene	ND	6.7							
Benzo(a)pyrene	ND	6.7							
Benzo(b)fluoranthene	ND	6.7							
Benzo(g,h,i)perylene	ND	6.7							
Benzo(k)fluoranthene	ND	6.7							
Bis(2-chloroethoxy)methane	ND	160							
Bis(2-chloroethyl)ether	ND	160							
Bis(2-chloroisopropyl)ether	ND	160							
Bis(2-ethylhexyl)phthalate	ND	330							
Butyl benzyl phthalate	ND	160							
Carbazole	ND	160							
Chrysene	ND	6.7							

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59350	Instrument ID SVMS6	Method: SW8270					
Dibenzo(a,h)anthracene	ND	6.7					
Dibenzofuran	ND	160					
Diethyl phthalate	ND	330					
Dimethyl phthalate	ND	330					
Di-n-butyl phthalate	ND	330					
Di-n-octyl phthalate	ND	160					
Fluoranthene	ND	6.7					
Fluorene	ND	6.7					
Hexachlorobenzene	ND	160					
Hexachlorobutadiene	ND	160					
Hexachlorocyclopentadiene	ND	330					
Hexachloroethane	ND	160					
Indeno(1,2,3-cd)pyrene	ND	6.7					
Isophorone	ND	160					
Naphthalene	ND	6.7					
Nitrobenzene	ND	160					
N-Nitrosodi-n-propylamine	ND	160					
N-Nitrosodiphenylamine	ND	160					
Pentachlorophenol	ND	330					
Phenanthere	ND	6.7					
Phenol	ND	160					
Pyrene	ND	6.7					
<i>Surr: 2,4,6-Tribromophenol</i>	1275	0	1667	0	76.5	34-140	0
<i>Surr: 2-Fluorobiphenyl</i>	1361	0	1667	0	81.7	12-100	0
<i>Surr: 2-Fluorophenol</i>	1531	0	1667	0	91.9	33-117	0
<i>Surr: 4-Terphenyl-d14</i>	1792	0	1667	0	108	25-137	0
<i>Surr: Nitrobenzene-d5</i>	1189	0	1667	0	71.3	37-107	0
<i>Surr: Phenol-d6</i>	1464	0	1667	0	87.8	40-106	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59350** Instrument ID **SVMS6** Method: **SW8270**

LCS	Sample ID: SLCSS1-59350-59350			Units: µg/Kg			Analysis Date: 6/5/2014 07:40 PM			
Client ID:	Run ID: SVMS6_140605A			SeqNo: 2797157			Prep Date: 6/5/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	513.7	160	666.7	0	77	45-110	0	0		
1,2-Dichlorobenzene	516.3	160	666.7	0	77.4	45-95	0	0		
1,3-Dichlorobenzene	497.7	160	666.7	0	74.6	40-100	0	0		
1,4-Dichlorobenzene	508.3	160	666.7	0	76.2	35-105	0	0		
2,4,5-Trichlorophenol	564	160	666.7	0	84.6	50-110	0	0		
2,4,6-Trichlorophenol	542.3	160	666.7	0	81.3	45-110	0	0		
2,4-Dichlorophenol	552	160	666.7	0	82.8	45-110	0	0		
2,4-Dimethylphenol	502	330	666.7	0	75.3	30-105	0	0		
2,4-Dinitrophenol	578.7	660	666.7	0	86.8	15-130	0	0		J
2,4-Dinitrotoluene	616.3	160	666.7	0	92.4	50-115	0	0		
2,6-Dinitrotoluene	568.3	160	666.7	0	85.2	50-110	0	0		
2-Chloronaphthalene	526.7	6.7	666.7	0	79	45-105	0	0		
2-Chlorophenol	610	160	666.7	0	91.5	45-105	0	0		
2-Methylnaphthalene	549.3	6.7	666.7	0	82.4	45-105	0	0		
2-Methylphenol	568.3	160	666.7	0	85.2	40-105	0	0		
2-Nitroaniline	568	660	666.7	0	85.2	45-120	0	0		J
2-Nitrophenol	526	160	666.7	0	78.9	40-110	0	0		
3-Nitroaniline	408.3	660	666.7	0	61.2	25-150	0	0		J
4-Bromophenyl phenyl ether	608	160	666.7	0	91.2	45-115	0	0		
4-Chloro-3-methylphenol	565.7	160	666.7	0	84.8	45-115	0	0		
4-Chloroaniline	295	660	666.7	0	44.2	15-110	0	0		J
4-Chlorophenyl phenyl ether	575.7	160	666.7	0	86.3	45-110	0	0		
4-Methylphenol	616	160	666.7	0	92.4	40-105	0	0		
4-Nitroaniline	355	660	666.7	0	53.2	35-150	0	0		J
4-Nitrophenol	575	660	666.7	0	86.2	15-140	0	0		J
Acenaphthene	535	6.7	666.7	0	80.2	45-110	0	0		
Acenaphthylene	548.7	6.7	666.7	0	82.3	45-105	0	0		
Anthracene	620.3	6.7	666.7	0	93	55-105	0	0		
Benzo(a)anthracene	598	6.7	666.7	0	89.7	50-110	0	0		
Benzo(a)pyrene	609.3	6.7	666.7	0	91.4	50-110	0	0		
Benzo(b)fluoranthene	639	6.7	666.7	0	95.8	45-115	0	0		
Benzo(g,h,i)perylene	502.3	6.7	666.7	0	75.3	40-125	0	0		
Benzo(k)fluoranthene	635	6.7	666.7	0	95.2	45-115	0	0		
Bis(2-chloroethoxy)methane	575.3	160	666.7	0	86.3	45-110	0	0		
Bis(2-chloroethyl)ether	554.3	160	666.7	0	83.1	40-105	0	0		
Bis(2-chloroisopropyl)ether	521	160	666.7	0	78.1	20-115	0	0		
Bis(2-ethylhexyl)phthalate	680	330	666.7	0	102	45-125	0	0		
Butyl benzyl phthalate	626.7	160	666.7	0	94	50-125	0	0		
Carbazole	636.3	160	666.7	0	95.4	50-150	0	0		
Chrysene	602.3	6.7	666.7	0	90.3	55-110	0	0		
Dibenzo(a,h)anthracene	527.3	6.7	666.7	0	79.1	40-125	0	0		
Dibenzofuran	549	160	666.7	0	82.3	50-105	0	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59350	Instrument ID SVMS6	Method: SW8270					
Diethyl phthalate	605	330	666.7	0	90.7	50-115	0
Dimethyl phthalate	585	330	666.7	0	87.7	50-110	0
Di-n-butyl phthalate	636	330	666.7	0	95.4	55-110	0
Di-n-octyl phthalate	804.7	160	666.7	0	121	40-130	0
Fluoranthene	655	6.7	666.7	0	98.2	55-115	0
Fluorene	562	6.7	666.7	0	84.3	50-110	0
Hexachlorobenzene	590.3	160	666.7	0	88.5	45-120	0
Hexachlorobutadiene	522	160	666.7	0	78.3	40-115	0
Hexachlorocyclopentadiene	473	330	666.7	0	70.9	40-115	0
Hexachloroethane	515.7	160	666.7	0	77.3	35-110	0
Indeno(1,2,3-cd)pyrene	512.7	6.7	666.7	0	76.9	40-120	0
Isophorone	553	160	666.7	0	82.9	45-110	0
Naphthalene	509	6.7	666.7	0	76.3	40-105	0
Nitrobenzene	520.3	160	666.7	0	78	40-115	0
N-Nitrosodi-n-propylamine	565.7	160	666.7	0	84.8	40-115	0
N-Nitrosodiphenylamine	609.3	160	666.7	0	91.4	50-115	0
Pentachlorophenol	617	330	666.7	0	92.5	25-120	0
Phenanthrene	568.3	6.7	666.7	0	85.2	50-110	0
Phenol	577	160	666.7	0	86.5	40-100	0
Pyrene	679	6.7	666.7	0	102	45-125	0
<i>Surr: 2,4,6-Tribromophenol</i>	1460	0	1667	0	87.6	34-140	0
<i>Surr: 2-Fluorobiphenyl</i>	1252	0	1667	0	75.1	12-100	0
<i>Surr: 2-Fluorophenol</i>	1435	0	1667	0	86.1	33-117	0
<i>Surr: 4-Terphenyl-d14</i>	1900	0	1667	0	114	25-137	0
<i>Surr: Nitrobenzene-d5</i>	1163	0	1667	0	69.8	37-107	0
<i>Surr: Phenol-d6</i>	1419	0	1667	0	85.2	40-106	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59350** Instrument ID **SVMS6** Method: **SW8270**

MS	Sample ID: 1406114-01B MS			Units: µg/Kg		Analysis Date: 6/5/2014 08:01 PM				
Client ID: VS-1 (North) 5'	Run ID: SVMS6_140605A			SeqNo: 2797160		Prep Date: 6/5/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	961.2	310	1290	0	74.5	45-110		0		
1,2-Dichlorobenzene	985.7	310	1290	0	76.4	45-95		0		
1,3-Dichlorobenzene	943.2	310	1290	0	73.1	40-100		0		
1,4-Dichlorobenzene	967.7	310	1290	0	75	35-105		0		
2,4,5-Trichlorophenol	1153	310	1290	0	89.3	50-110		0		
2,4,6-Trichlorophenol	1053	310	1290	0	81.6	45-110		0		
2,4-Dichlorophenol	1091	310	1290	0	84.5	45-110		0		
2,4-Dimethylphenol	885.7	640	1290	0	68.6	30-105		0		
2,4-Dinitrophenol	1199	1,300	1290	0	92.9	15-130		0		J
2,4-Dinitrotoluene	1213	310	1290	0	94	50-115		0		
2,6-Dinitrotoluene	1124	310	1290	0	87.1	50-110		0		
2-Chloronaphthalene	1013	13	1290	0	78.5	45-105		0		
2-Chlorophenol	1181	310	1290	0	91.5	45-105		0		
2-Methylnaphthalene	1055	13	1290	0	81.8	45-105		0		
2-Methylphenol	1102	310	1290	0	85.4	40-105		0		
2-Nitroaniline	1152	1,300	1290	0	89.3	45-120		0		J
2-Nitrophenol	998.6	310	1290	0	77.4	40-110		0		
3-Nitroaniline	989	1,300	1290	0	76.6	25-110		0		J
4-Bromophenyl phenyl ether	1159	310	1290	0	89.8	45-115		0		
4-Chloro-3-methylphenol	1150	310	1290	0	89.1	45-115		0		
4-Chloroaniline	654.8	1,300	1290	0	50.7	15-110		0		J
4-Chlorophenyl phenyl ether	1136	310	1290	0	88	45-110		0		
4-Methylphenol	1247	310	1290	0	96.6	40-105		0		
4-Nitroaniline	1123	1,300	1290	0	87	35-150		0		J
4-Nitrophenol	1237	1,300	1290	0	95.8	15-140		0		J
Acenaphthene	1045	13	1290	0	81	45-110		0		
Acenaphthylene	1066	13	1290	0	82.6	45-105		0		
Anthracene	1212	13	1290	4.988	93.5	55-105		0		
Benzo(a)anthracene	1205	13	1290	35.58	90.6	50-110		0		
Benzo(a)pyrene	1230	13	1290	51.21	91.4	50-110		0		
Benzo(b)fluoranthene	1261	13	1290	51.21	93.8	45-115		0		
Benzo(g,h,i)perylene	1003	13	1290	33.59	75.1	40-125		0		
Benzo(k)fluoranthene	1235	13	1290	28.93	93.5	45-115		0		
Bis(2-chloroethoxy)methane	1096	310	1290	0	84.9	45-110		0		
Bis(2-chloroethyl)ether	1090	310	1290	0	84.5	40-105		0		
Bis(2-chloroisopropyl)ether	1019	310	1290	0	79	20-115		0		
Bis(2-ethylhexyl)phthalate	1443	640	1290	0	112	45-125		0		
Butyl benzyl phthalate	1244	310	1290	0	96.4	50-125		0		
Carbazole	1288	310	1290	0	99.8	50-150		0		
Chrysene	1176	13	1290	23.61	89.3	55-110		0		
Dibenzo(a,h)anthracene	1046	13	1290	29.27	78.8	40-125		0		
Dibenzofuran	1063	310	1290	0	82.4	50-105		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59350	Instrument ID SVMS6	Method: SW8270					
Diethyl phthalate	1182	640	1290	0	91.6	50-115	0
Dimethyl phthalate	1132	640	1290	0	87.7	50-110	0
Di-n-butyl phthalate	1339	640	1290	0	104	55-110	0
Di-n-octyl phthalate	1622	310	1290	0	126	40-130	0
Fluoranthene	1415	13	1290	51.21	106	55-115	0
Fluorene	1123	13	1290	0	87	50-110	0
Hexachlorobenzene	1146	310	1290	0	88.8	45-120	0
Hexachlorobutadiene	975.4	310	1290	0	75.6	40-115	0
Hexachlorocyclopentadiene	872.2	640	1290	0	67.6	40-115	0
Hexachloroethane	983.8	310	1290	0	76.2	35-110	0
Indeno(1,2,3-cd)pyrene	1076	13	1290	49.55	79.6	40-120	0
Isophorone	1059	310	1290	0	82	45-110	0
Naphthalene	960.6	13	1290	0	74.4	40-105	0
Nitrobenzene	1009	310	1290	0	78.2	40-115	0
N-Nitrosodi-n-propylamine	1108	310	1290	0	85.9	40-115	0
N-Nitrosodiphenylamine	1130	310	1290	0	87.6	50-115	0
Pentachlorophenol	1237	640	1290	0	95.8	25-120	0
Phenanthrene	1140	13	1290	22.61	86.6	50-110	0
Phenol	1133	310	1290	0	87.8	40-100	0
Pyrene	1249	13	1290	44.23	93.4	45-125	0
<i>Surr: 2,4,6-Tribromophenol</i>	2767	0	3226	0	85.8	34-140	0
<i>Surr: 2-Fluorobiphenyl</i>	2366	0	3226	0	73.4	12-100	0
<i>Surr: 2-Fluorophenol</i>	2695	0	3226	0	83.5	33-117	0
<i>Surr: 4-Terphenyl-d14</i>	3339	0	3226	0	104	25-137	0
<i>Surr: Nitrobenzene-d5</i>	2201	0	3226	0	68.2	37-107	0
<i>Surr: Phenol-d6</i>	2740	0	3226	0	85	40-106	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 10 of 21

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59350** Instrument ID **SVMS6** Method: **SW8270**

MSD			Sample ID: 1406114-01B MSD			Units: µg/Kg		Analysis Date: 6/5/2014 08:21 PM		
Client ID: VS-1 (North) 5'		Run ID: SVMS6_140605A			SeqNo: 2797162		Prep Date: 6/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	990	310	1301	0	76.1	45-110	961.2	2.95	30	
1,2-Dichlorobenzene	1008	310	1301	0	77.5	45-95	985.7	2.25	30	
1,3-Dichlorobenzene	956.8	310	1301	0	73.5	40-100	943.2	1.44	30	
1,4-Dichlorobenzene	982.8	310	1301	0	75.5	35-105	967.7	1.55	30	
2,4,5-Trichlorophenol	1145	310	1301	0	88	50-110	1153	0.7	30	
2,4,6-Trichlorophenol	1075	310	1301	0	82.6	45-110	1053	1.98	30	
2,4-Dichlorophenol	1057	310	1301	0	81.2	45-110	1091	3.16	30	
2,4-Dimethylphenol	891.1	640	1301	0	68.5	30-105	885.7	0.604	30	
2,4-Dinitrophenol	1101	1,300	1301	0	84.6	15-130	1199	0	30	J
2,4-Dinitrotoluene	1192	310	1301	0	91.6	50-115	1213	1.76	30	
2,6-Dinitrotoluene	1112	310	1301	0	85.5	50-110	1124	1.03	30	
2-Chloronaphthalene	1048	13	1301	0	80.5	45-105	1013	3.4	30	
2-Chlorophenol	1157	310	1301	0	88.9	45-105	1181	2	30	
2-Methylnaphthalene	1060	13	1301	0	81.4	45-105	1055	0.394	30	
2-Methylphenol	1068	310	1301	0	82.1	40-105	1102	3.12	30	
2-Nitroaniline	1149	1,300	1301	0	88.3	45-120	1152	0	30	J
2-Nitrophenol	1026	310	1301	0	78.9	40-110	998.6	2.74	30	
3-Nitroaniline	978.3	1,300	1301	0	75.2	25-110	989	0	30	J
4-Bromophenyl phenyl ether	1205	310	1301	0	92.6	45-115	1159	3.95	30	
4-Chloro-3-methylphenol	1097	310	1301	0	84.3	45-115	1150	4.71	30	
4-Chloroaniline	664.1	1,300	1301	0	51	15-110	654.8	0	30	J
4-Chlorophenyl phenyl ether	1138	310	1301	0	87.5	45-110	1136	0.196	30	
4-Methylphenol	1178	310	1301	0	90.5	40-105	1247	5.7	30	
4-Nitroaniline	1102	1,300	1301	0	84.7	35-150	1123	0	30	J
4-Nitrophenol	1108	1,300	1301	0	85.1	15-140	1237	0	30	J
Acenaphthene	1055	13	1301	0	81.1	45-110	1045	0.946	30	
Acenaphthylene	1078	13	1301	0	82.9	45-105	1066	1.12	30	
Anthracene	1224	13	1301	4.988	93.7	55-105	1212	1.04	30	
Benzo(a)anthracene	1261	13	1301	35.58	94.2	50-110	1205	4.55	30	
Benzo(a)pyrene	1269	13	1301	51.21	93.6	50-110	1230	3.1	30	
Benzo(b)fluoranthene	1326	13	1301	51.21	98	45-115	1261	5.03	30	
Benzo(g,h,i)perylene	1065	13	1301	33.59	79.3	40-125	1003	5.96	30	
Benzo(k)fluoranthene	1246	13	1301	28.93	93.5	45-115	1235	0.875	30	
Bis(2-chloroethoxy)methane	1119	310	1301	0	86	45-110	1096	2.05	30	
Bis(2-chloroethyl)ether	1078	310	1301	0	82.9	40-105	1090	1.09	30	
Bis(2-chloroisopropyl)ether	1039	310	1301	0	79.9	20-115	1019	1.96	30	
Bis(2-ethylhexyl)phthalate	1423	640	1301	0	109	45-125	1443	1.44	30	
Butyl benzyl phthalate	1326	310	1301	0	102	50-125	1244	6.42	30	
Carbazole	1246	310	1301	0	95.7	50-150	1288	3.32	30	
Chrysene	1234	13	1301	23.61	93	55-110	1176	4.8	30	
Dibenzo(a,h)anthracene	1066	13	1301	29.27	79.7	40-125	1046	1.87	30	
Dibenzofuran	1090	310	1301	0	83.7	50-105	1063	2.45	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59350	Instrument ID SVMS6	Method: SW8270							
Diethyl phthalate	1170	640	1301	0	89.9	50-115	1182	0.995	30
Dimethyl phthalate	1138	640	1301	0	87.5	50-110	1132	0.537	30
Di-n-butyl phthalate	1263	640	1301	0	97.1	55-110	1339	5.8	30
Di-n-octyl phthalate	1730	310	1301	0	133	40-130	1622	6.39	30
Fluoranthene	1413	13	1301	51.21	105	55-115	1415	0.185	30
Fluorene	1110	13	1301	0	85.3	50-110	1123	1.09	30
Hexachlorobenzene	1171	310	1301	0	90	45-120	1146	2.22	30
Hexachlorobutadiene	1015	310	1301	0	78	40-115	975.4	3.95	30
Hexachlorocyclopentadiene	898.9	640	1301	0	69.1	40-115	872.2	3.02	30
Hexachloroethane	1023	310	1301	0	78.6	35-110	983.8	3.92	30
Indeno(1,2,3-cd)pyrene	1109	13	1301	49.55	81.4	40-120	1076	3.02	30
Isophorone	1074	310	1301	0	82.5	45-110	1059	1.43	30
Naphthalene	986.7	13	1301	0	75.8	40-105	960.6	2.69	30
Nitrobenzene	1029	310	1301	0	79.1	40-115	1009	1.97	30
N-Nitrosodi-n-propylamine	1104	310	1301	0	84.8	40-115	1108	0.407	30
N-Nitrosodiphenylamine	1192	310	1301	0	91.6	50-115	1130	5.34	30
Pentachlorophenol	1216	640	1301	0	93.5	25-120	1237	1.66	30
Phenanthrene	1158	13	1301	22.61	87.3	50-110	1140	1.56	30
Phenol	1100	310	1301	0	84.5	40-100	1133	3.01	30
Pyrene	1461	13	1301	44.23	109	45-125	1249	15.6	30
<i>Surr: 2,4,6-Tribromophenol</i>	2779	0	3252	0	85.5	34-140	2767	0.449	40
<i>Surr: 2-Fluorobiphenyl</i>	2462	0	3252	0	75.7	12-100	2366	3.96	40
<i>Surr: 2-Fluorophenol</i>	2675	0	3252	0	82.2	33-117	2695	0.746	40
<i>Surr: 4-Terphenyl-d14</i>	3711	0	3252	0	114	25-137	3339	10.5	40
<i>Surr: Nitrobenzene-d5</i>	2249	0	3252	0	69.1	37-107	2201	2.13	40
<i>Surr: Phenol-d6</i>	2657	0	3252	0	81.7	40-106	2740	3.09	40

The following samples were analyzed in this batch:

1406114-01B	1406114-02B	1406114-03B
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1406114-04B

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59379** Instrument ID **VMS9** Method: **SW8260B**

MLBK		Sample ID: MLBK-59379-59379			Units: µg/Kg		Analysis Date: 6/5/2014 07:02 PM			
Client ID:		Run ID: VMS9_140605A			SeqNo: 2795648		Prep Date: 6/5/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
1,1,1,2-Tetrachloroethane		ND	30							
1,1,1-Trichloroethane		ND	30							
1,1,2,2-Tetrachloroethane		ND	30							
1,1,2-Trichloroethane		ND	30							
1,1,2-Trichlorotrifluoroethane		ND	30							
1,1-Dichloroethane		ND	30							
1,1-Dichloroethene		ND	30							
1,2,3-Trichloropropane		ND	30							
1,2,4-Trichlorobenzene		ND	30							
1,2,4-Trimethylbenzene		ND	30							
1,2-Dibromo-3-chloropropane		ND	30							
1,2-Dibromoethane		ND	30							
1,2-Dichlorobenzene		ND	30							
1,2-Dichloroethane		ND	30							
1,2-Dichloropropane		ND	30							
1,3,5-Trimethylbenzene		ND	30							
1,3-Dichlorobenzene		ND	30							
1,4-Dichlorobenzene		ND	30							
2-Butanone		ND	200							
2-Hexanone		ND	30							
2-Methylnaphthalene		ND	100							
4-Methyl-2-pentanone		ND	30							
Acetone		ND	100							
Acrylonitrile		ND	100							
Benzene		ND	30							
Bromochloromethane		ND	30							
Bromodichloromethane		ND	30							
Bromoform		ND	30							
Bromomethane		ND	75							
Carbon disulfide		ND	30							
Carbon tetrachloride		ND	30							
Chlorobenzene		ND	30							
Chloroethane		ND	100							
Chloroform		ND	30							
Chloromethane		149	100							
cis-1,2-Dichloroethene		ND	30							
cis-1,3-Dichloropropene		ND	30							
Dibromochloromethane		ND	30							
Dibromomethane		ND	30							
Dichlorodifluoromethane		ND	30							
Diethyl ether		ND	30							
Ethylbenzene		ND	30							

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59379	Instrument ID VMS9	Method: SW8260B				
Hexachloroethane	ND	30				
Isopropylbenzene	ND	30				
m,p-Xylene	ND	60				
Methyl iodide	48.5	75				J
Methyl tert-butyl ether	ND	30				
Methylene chloride	ND	30				
Naphthalene	42	100				J
n-Propylbenzene	ND	30				
o-Xylene	ND	30				
Styrene	ND	30				
Tetrachloroethene	ND	30				
Toluene	ND	30				
trans-1,2-Dichloroethene	ND	30				
trans-1,3-Dichloropropene	ND	30				
trans-1,4-Dichloro-2-butene	ND	30				
Trichloroethene	ND	30				
Trichlorofluoromethane	ND	30				
Vinyl acetate	ND	30				
Vinyl chloride	ND	30				
Xylenes, Total	ND	90				
<i>Surr: 1,2-Dichloroethane-d4</i>	1028	0	1000	0	103	70-130
<i>Surr: 4-Bromofluorobenzene</i>	883	0	1000	0	88.3	70-130
<i>Surr: Dibromofluoromethane</i>	977	0	1000	0	97.7	70-130
<i>Surr: Toluene-d8</i>	926.5	0	1000	0	92.6	70-130

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59379** Instrument ID **VMS9** Method: **SW8260B**

LCS	Sample ID: LCS-59379-59379			Units: µg/Kg			Analysis Date: 6/5/2014 04:58 PM			
Client ID:	Run ID: VMS9_140605A			SeqNo: 2795647			Prep Date: 6/5/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1025	30	1000	0	102	75-125		0		
1,1,1-Trichloroethane	1140	30	1000	0	114	70-135		0		
1,1,2,2-Tetrachloroethane	1116	30	1000	0	112	55-130		0		
1,1,2-Trichloroethane	1045	30	1000	0	104	60-125		0		
1,1-Dichloroethane	1038	30	1000	0	104	75-125		0		
1,1-Dichloroethene	1118	30	1000	0	112	65-135		0		
1,2,3-Trichloropropane	1065	30	1000	0	106	65-130		0		
1,2,4-Trichlorobenzene	1088	30	1000	0	109	65-130		0		
1,2,4-Trimethylbenzene	1006	30	1000	0	101	65-135		0		
1,2-Dibromo-3-chloropropane	1113	30	1000	0	111	40-135		0		
1,2-Dibromoethane	1104	30	1000	0	110	75-125		0		
1,2-Dichlorobenzene	1056	30	1000	0	106	75-120		0		
1,2-Dichloroethane	1035	30	1000	0	104	70-135		0		
1,2-Dichloropropane	1040	30	1000	0	104	70-120		0		
1,3,5-Trimethylbenzene	1023	30	1000	0	102	65-135		0		
1,3-Dichlorobenzene	1068	30	1000	0	107	70-125		0		
1,4-Dichlorobenzene	1058	30	1000	0	106	70-125		0		
2-Butanone	1254	200	1000	0	125	30-160		0		
2-Hexanone	1253	30	1000	0	125	45-145		0		
4-Methyl-2-pentanone	1610	30	1000	0	161	96-168		0		
Acetone	1240	100	1000	0	124	20-160		0		
Acrylonitrile	1102	100	1000	0	110	70-135		0		
Benzene	1023	30	1000	0	102	75-125		0		
Bromochloromethane	1022	30	1000	0	102	70-125		0		
Bromodichloromethane	1004	30	1000	0	100	70-130		0		
Bromoform	1020	30	1000	0	102	55-135		0		
Bromomethane	1040	75	1000	0	104	30-160		0		
Carbon disulfide	1100	30	1000	0	110	45-160		0		
Carbon tetrachloride	986.5	30	1000	0	98.6	65-135		0		
Chlorobenzene	1061	30	1000	0	106	75-125		0		
Chloroethane	967	100	1000	0	96.7	40-155		0		
Chloroform	999	30	1000	0	99.9	70-125		0		
Chloromethane	956	100	1000	0	95.6	50-130		0		B
cis-1,2-Dichloroethene	999	30	1000	0	99.9	65-125		0		
cis-1,3-Dichloropropene	987	30	1000	0	98.7	70-125		0		
Dibromochloromethane	969	30	1000	0	96.9	65-135		0		
Dibromomethane	990.5	30	1000	0	99	75-130		0		
Dichlorodifluoromethane	1004	30	1000	0	100	35-135		0		
Ethylbenzene	1002	30	1000	0	100	75-125		0		
Hexachloroethane	912	30	1000	0	91.2	70-135		0		
Isopropylbenzene	1015	30	1000	0	102	75-130		0		
m,p-Xylene	2024	60	2000	0	101	80-125		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59379	Instrument ID VMS9	Method: SW8260B					
Methyl iodide	1007	75	1000	0	101	64-145	0
Methyl tert-butyl ether	1005	30	1000	0	100	75-125	0
Methylene chloride	1100	30	1000	0	110	55-145	0
Naphthalene	1206	100	1000	0	121	40-140	0
n-Propylbenzene	1002	30	1000	0	100	65-135	0
o-Xylene	984	30	1000	0	98.4	75-125	0
Styrene	1048	30	1000	0	105	75-125	0
Tetrachloroethene	1037	30	1000	0	104	64-140	0
Toluene	1084	30	1000	0	108	70-125	0
trans-1,2-Dichloroethene	1078	30	1000	0	108	65-135	0
trans-1,3-Dichloropropene	1094	30	1000	0	109	65-125	0
trans-1,4-Dichloro-2-butene	806	30	1000	0	80.6	62-112	0
Trichloroethene	1080	30	1000	0	108	75-125	0
Trichlorofluoromethane	1023	30	1000	0	102	25-185	0
Vinyl chloride	1012	30	1000	0	101	60-125	0
Xylenes, Total	3008	90	3000	0	100	75-125	0
<i>Surr: 1,2-Dichloroethane-d4</i>	968.5	0	1000	0	96.8	70-130	0
<i>Surr: 4-Bromofluorobenzene</i>	995	0	1000	0	99.5	70-130	0
<i>Surr: Dibromofluoromethane</i>	936.5	0	1000	0	93.6	70-130	0
<i>Surr: Toluene-d8</i>	1002	0	1000	0	100	70-130	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

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Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59379** Instrument ID **VMS9** Method: **SW8260B**

MS	Sample ID: 1406251-01A MS			Units: µg/Kg		Analysis Date: 6/7/2014 11:57 AM		
Client ID:	Run ID: VMS8_140606B			SeqNo: 2798693		Prep Date: 6/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
1,1,1,2-Tetrachloroethane	1062	30	1000	0	106	75-125	0	0
1,1,1-Trichloroethane	1199	30	1000	0	120	70-135	0	0
1,1,2,2-Tetrachloroethane	882	30	1000	0	88.2	55-130	0	0
1,1,2-Trichloroethane	1050	30	1000	0	105	60-125	0	0
1,1-Dichloroethane	1128	30	1000	0	113	75-125	0	0
1,1-Dichloroethene	1272	30	1000	0	127	65-135	0	0
1,2,3-Trichloropropane	897.5	30	1000	0	89.8	65-130	0	0
1,2,4-Trichlorobenzene	988	30	1000	0	98.8	65-130	0	0
1,2,4-Trimethylbenzene	1004	30	1000	32	97.2	65-135	0	0
1,2-Dibromo-3-chloropropane	813.5	30	1000	0	81.4	40-135	0	0
1,2-Dibromoethane	1068	30	1000	0	107	75-125	0	0
1,2-Dichlorobenzene	1005	30	1000	0	100	75-120	0	0
1,2-Dichloroethane	1080	30	1000	0	108	70-135	0	0
1,2-Dichloropropane	1078	30	1000	0	108	70-120	0	0
1,3,5-Trimethylbenzene	1099	30	1000	0	110	65-135	0	0
1,3-Dichlorobenzene	1030	30	1000	0	103	70-125	0	0
1,4-Dichlorobenzene	972	30	1000	0	97.2	70-125	0	0
2-Butanone	886	200	1000	0	88.6	30-160	0	0
2-Hexanone	787	30	1000	0	78.7	45-145	0	0
4-Methyl-2-pentanone	1081	30	1000	0	108	89-161	0	0
Acetone	1120	100	1000	0	112	20-160	0	0
Acrylonitrile	1005	100	1000	0	100	70-135	0	0
Benzene	1036	30	1000	0	104	75-125	0	0
Bromochloromethane	1068	30	1000	0	107	70-125	0	0
Bromodichloromethane	1080	30	1000	0	108	70-130	0	0
Bromoform	913	30	1000	0	91.3	55-135	0	0
Bromomethane	1041	75	1000	0	104	30-160	0	0
Carbon disulfide	1170	30	1000	0	117	45-160	0	0
Carbon tetrachloride	1133	30	1000	0	113	65-135	0	0
Chlorobenzene	1032	30	1000	0	103	75-125	0	0
Chloroethane	281.5	100	1000	0	28.2	40-155	0	S
Chloroform	1100	30	1000	0	110	70-125	0	0
Chloromethane	994.5	100	1000	0	99.4	50-130	0	B
cis-1,2-Dichloroethene	1099	30	1000	0	110	65-125	0	0
cis-1,3-Dichloropropene	1096	30	1000	0	110	70-125	0	0
Dibromochloromethane	937	30	1000	0	93.7	65-135	0	0
Dibromomethane	1088	30	1000	0	109	75-130	0	0
Dichlorodifluoromethane	739	30	1000	0	73.9	35-135	0	0
Ethylbenzene	1050	30	1000	0	105	75-125	0	0
Hexachloroethane	796	30	1000	0	79.6	70-135	0	0
Isopropylbenzene	1064	30	1000	0	106	75-130	0	0
m,p-Xylene	2210	60	2000	69.5	107	80-125	0	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59379	Instrument ID VMS9	Method: SW8260B					
Methyl iodide	1469	75	1000	0	147	30-105	0
Methyl tert-butyl ether	1016	30	1000	0	102	75-125	0
Methylene chloride	1091	30	1000	0	109	55-145	0
Naphthalene	970	100	1000	0	97	40-140	0
n-Propylbenzene	1006	30	1000	0	101	65-135	0
o-Xylene	1039	30	1000	0	104	75-125	0
Styrene	1066	30	1000	0	107	75-125	0
Tetrachloroethene	1458	30	1000	0	146	64-140	0
Toluene	1065	30	1000	24.5	104	70-125	0
trans-1,2-Dichloroethene	1213	30	1000	0	121	65-135	0
trans-1,3-Dichloropropene	948.5	30	1000	0	94.8	65-125	0
trans-1,4-Dichloro-2-butene	774.5	30	1000	0	77.4	45-86	0
Trichloroethene	1213	30	1000	0	121	75-125	0
Trichlorofluoromethane	1139	30	1000	0	114	25-185	0
Vinyl chloride	1021	30	1000	0	102	60-125	0
Xylenes, Total	3250	90	3000	70	106	75-125	0
Surr: 1,2-Dichloroethane-d4	941.5	0	1000	0	94.2	70-130	0
Surr: 4-Bromofluorobenzene	1015	0	1000	0	102	70-130	0
Surr: Dibromofluoromethane	941.5	0	1000	0	94.2	70-130	0
Surr: Toluene-d8	936.5	0	1000	0	93.6	70-130	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

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Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: **59379** Instrument ID **VMS9** Method: **SW8260B**

MSD	Sample ID: 1406251-01A MSD			Units: µg/Kg			Analysis Date: 6/7/2014 12:21 PM			
	Client ID:	Run ID: VMS8_140606B	SeqNo: 2798695	Prep Date: 6/5/2014	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1057	30	1000	0	106	75-125	1062	0.425	30	
1,1,1-Trichloroethane	1186	30	1000	0	119	70-135	1199	1.05	30	
1,1,2,2-Tetrachloroethane	902.5	30	1000	0	90.2	55-130	882	2.3	30	
1,1,2-Trichloroethane	1022	30	1000	0	102	60-125	1050	2.7	30	
1,1-Dichloroethane	1120	30	1000	0	112	75-125	1128	0.801	30	
1,1-Dichloroethene	1218	30	1000	0	122	65-135	1272	4.34	30	
1,2,3-Trichloropropane	877	30	1000	0	87.7	65-130	897.5	2.31	30	
1,2,4-Trichlorobenzene	1004	30	1000	0	100	65-130	988	1.66	30	
1,2,4-Trimethylbenzene	1024	30	1000	32	99.2	65-135	1004	1.97	30	
1,2-Dibromo-3-chloropropane	788	30	1000	0	78.8	40-135	813.5	3.18	30	
1,2-Dibromoethane	1058	30	1000	0	106	75-125	1068	1.03	30	
1,2-Dichlorobenzene	1006	30	1000	0	101	75-120	1005	0.0497	30	
1,2-Dichloroethane	1069	30	1000	0	107	70-135	1080	1.07	30	
1,2-Dichloropropane	1072	30	1000	0	107	70-120	1078	0.512	30	
1,3,5-Trimethylbenzene	1098	30	1000	0	110	65-135	1099	0.0455	30	
1,3-Dichlorobenzene	1042	30	1000	0	104	70-125	1030	1.06	30	
1,4-Dichlorobenzene	958.5	30	1000	0	95.8	70-125	972	1.4	30	
2-Butanone	924	200	1000	0	92.4	30-160	886	4.2	30	
2-Hexanone	782	30	1000	0	78.2	45-145	787	0.637	30	
4-Methyl-2-pentanone	1068	30	1000	0	107	89-161	1081	1.26	30	
Acetone	1070	100	1000	0	107	20-160	1120	4.61	30	
Acrylonitrile	1009	100	1000	0	101	70-135	1005	0.397	30	
Benzene	1040	30	1000	0	104	75-125	1036	0.385	30	
Bromochloromethane	1057	30	1000	0	106	70-125	1068	0.988	30	
Bromodichloromethane	1083	30	1000	0	108	70-130	1080	0.277	30	
Bromoform	910.5	30	1000	0	91	55-135	913	0.274	30	
Bromomethane	1064	75	1000	0	106	30-160	1041	2.14	30	
Carbon disulfide	1150	30	1000	0	115	45-160	1170	1.68	30	
Carbon tetrachloride	1040	30	1000	0	104	65-135	1133	8.51	30	
Chlorobenzene	1023	30	1000	0	102	75-125	1032	0.924	30	
Chloroethane	277.5	100	1000	0	27.8	40-155	281.5	1.43	30	S
Chloroform	1084	30	1000	0	108	70-125	1100	1.56	30	
Chloromethane	984	100	1000	0	98.4	50-130	994.5	1.06	30	B
cis-1,2-Dichloroethene	1076	30	1000	0	108	65-125	1099	2.07	30	
cis-1,3-Dichloropropene	1096	30	1000	0	110	70-125	1096	0.0456	30	
Dibromochloromethane	938	30	1000	0	93.8	65-135	937	0.107	30	
Dibromomethane	1077	30	1000	0	108	75-130	1088	1.06	30	
Dichlorodifluoromethane	708	30	1000	0	70.8	35-135	739	4.28	30	
Ethylbenzene	1048	30	1000	0	105	75-125	1050	0.143	30	
Hexachloroethane	811.5	30	1000	0	81.2	70-135	796	1.93	30	
Isopropylbenzene	1054	30	1000	0	105	75-130	1064	0.897	30	
m,p-Xylene	2216	60	2000	69.5	107	80-125	2210	0.249	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: 59379	Instrument ID VMS9	Method: SW8260B								
Methyl iodide	1465	75	1000	0	146	30-105	1469	0.273	30	S
Methyl tert-butyl ether	1023	30	1000	0	102	75-125	1016	0.687	30	
Methylene chloride	1106	30	1000	0	111	55-145	1091	1.32	30	
Naphthalene	993	100	1000	0	99.3	40-140	970	2.34	30	
n-Propylbenzene	995.5	30	1000	0	99.6	65-135	1006	1.1	30	
o-Xylene	1025	30	1000	0	102	75-125	1039	1.36	30	
Styrene	1053	30	1000	0	105	75-125	1066	1.23	30	
Tetrachloroethene	1402	30	1000	0	140	64-140	1458	3.92	30	S
Toluene	1024	30	1000	24.5	100	70-125	1065	3.88	30	
trans-1,2-Dichloroethene	1202	30	1000	0	120	65-135	1213	0.953	30	
trans-1,3-Dichloropropene	946	30	1000	0	94.6	65-125	948.5	0.264	30	
trans-1,4-Dichloro-2-butene	691.5	30	1000	0	69.2	45-86	774.5	11.3	30	
Trichloroethene	1216	30	1000	0	122	75-125	1213	0.288	30	
Trichlorofluoromethane	1129	30	1000	0	113	25-185	1139	0.882	30	
Vinyl chloride	1004	30	1000	0	100	60-125	1021	1.73	30	
Xylenes, Total	3241	90	3000	70	106	75-125	3250	0.262	30	
Surr: 1,2-Dichloroethane-d4	934.5	0	1000	0	93.4	70-130	941.5	0.746	30	
Surr: 4-Bromofluorobenzene	995.5	0	1000	0	99.6	70-130	1015	1.94	30	
Surr: Dibromofluoromethane	961.5	0	1000	0	96.2	70-130	941.5	2.1	30	
Surr: Toluene-d8	924	0	1000	0	92.4	70-130	936.5	1.34	30	

The following samples were analyzed in this batch:

1406114-01A	1406114-02A	1406114-03A
1406114-04A	1406114-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 1406114
Project: 5700L3

QC BATCH REPORT

Batch ID: R142099 Instrument ID MOIST Method: A2540 G

MBLK		Sample ID: WBLKS-R142099			Units: % of sample		Analysis Date: 6/4/2014 02:13 PM			
Client ID:		Run ID: MOIST_140604A			SeqNo: 2795048		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		ND		0.050						
LCS		Sample ID: LCS-R142099			Units: % of sample		Analysis Date: 6/4/2014 02:13 PM			
Client ID:		Run ID: MOIST_140604A			SeqNo: 2795047		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		100	0.050	100	0	100	99.5-100.5	0		
DUP		Sample ID: 1406142-01A DUP			Units: % of sample		Analysis Date: 6/4/2014 02:13 PM			
Client ID:		Run ID: MOIST_140604A			SeqNo: 2795039		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		24.57	0.050	0	0	0	0-0	24.96	1.57	20
DUP		Sample ID: 1406143-01A DUP			Units: % of sample		Analysis Date: 6/4/2014 02:13 PM			
Client ID:		Run ID: MOIST_140604A			SeqNo: 2795041		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		12.21	0.050	0	0	0	0-0	12.4	1.54	20

The following samples were analyzed in this batch:

1406114-01B 1406114-02B 1406114-03B
1406114-04B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1Houston, TX
+1 281 530 5656Middletown, PA
+1 717 944 5541Spring City, PA
+1 610 948 4903Salt Lake City, UT
+1 801 266 7700South Charleston, WV
+1 304 356 3168York, PA
+1 717 505 5280

COC ID: 16762

Environmental

ALS Project Manager:

ALS Work Order #: 1400114

Customer Information		Project Information		Parameter/Method Request for Analysis																
Purchase Order		Project Name		A	VOCs															
Work Order		Project Number		B	MI-10 Metals															
Company Name	AKT Peerless Environmental Services	Bill To Company	AKT Peerless	C	SVOCs															
Send Report To	Joshua Gekeler	Invoice Attn	Accounts Payable	D	PCBs															
Address	1000 S Washington Suite 104	Address	214 Janes Avenue	E																
City/State/Zip	Lansing, MI 48933	City/State/Zip	Saginaw, MI 48607	F																
Phone	(517) 482-9227	Phone	(989) 754-9896	G																
Fax	(517) 482-9228	Fax		H																
e-Mail Address		e-Mail Address		I																
J																				

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	VS-1 (north) 5'	6/3/14	1015	S	7	2	X	X	X	X							
2	VS-2 (south) 5'		1030	S	7	2	X	X	X	X							
3	AKT-SB-1 7-8' 1.5'		1255	S	7	2	X	X	X	X							
4	AKT-SB-2 +5' 7-8'	6/3/14	1305	S	7	2	X	X	X	X							
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign			Shipment Method		Required Turnaround Time: (Check Box)			Other		Results Due Date:						
<i>Josh Gekeler</i>					<input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour											
Relinquished by:	Date: 6/3/14	Time: 1520	Received by:	Notes:												
<i>Josh Gekeler</i>			<i>EDL</i>													
Relinquished by:	Date: 6/3/14	Time: 1615	Received by Laboratory:													
<i>RDU</i>			<i>EDL</i>													
Logged by Laboratory:	Date: 6/4/14	Time: 0810	Checked by Laboratory:													
<i>KC</i>			<i>EDL</i>													
Preservative Key:	1-HCl	2-HNO ₃	3-H ₂ SO ₄	4-NaOH	5-Na ₂ S ₂ O ₃	6-NaHSO ₄	7-Other	8-4°C	9-5035	10	11	12	13	14	15	16
<input type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Other																

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: AKT PEERLESS - LANSING

Date/Time Received: 03-Jun-14 16:15

Work Order: 1406114

Received by: KRW

Checklist completed by Keith Warenga
eSignature

04-Jun-14

Date

Reviewed by: Joseph Ribar
eSignature

05-Jun-14

Date

Matrices: Water

Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.4 C</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>6/4/2014 9:39:37 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



30-May-2014

Joshua Gekeler
AKT Peerless Environmental Services
1000 S Washington
Suite 104
Lansing, MI 48933

Re: **Y-Site - 5700L2-8-20**

Work Order: **14051119**

Dear Joshua,

ALS Environmental received 5 samples on 21-May-2014 05:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 13.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Joseph Ribar".

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager



Certificate No: MI: 0022

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: AKT Peerless Environmental Services
Project: Y-Site - 5700L2-8-20
Work Order: **14051119**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14051119-01	Trap #1	Water		5/21/2014 10:30	5/21/2014 17:00	<input type="checkbox"/>
14051119-02	Trap #2	Water		5/21/2014 10:32	5/21/2014 17:00	<input type="checkbox"/>
14051119-03	Trap #3	Water		5/21/2014 10:35	5/21/2014 17:00	<input type="checkbox"/>
14051119-04	Trap #4	Water		5/21/2014 10:37	5/21/2014 17:00	<input type="checkbox"/>
14051119-05	Trap #5	Water		5/21/2014 08:55	5/21/2014 17:00	<input type="checkbox"/>

ALS Group USA, Corp**Date:** 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20
Lab ID: 14051119-01

Client Sample ID: Trap #1
Collection Date: 5/21/2014 10:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
Mercury	22	2.0	0.20		µg/L	10	5/29/2014
METALS BY ICP-MS							
Silver	96	0.20	0.20		µg/L	1	5/27/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20
Lab ID: 14051119-02

Client Sample ID: Trap #2
Collection Date: 5/21/2014 10:32:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
Mercury	ND	0.20	0.20		µg/L	1	5/27/2014
METALS BY ICP-MS							
Silver	0.27	0.20	0.20		µg/L	1	5/27/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20
Lab ID: 14051119-03

Client Sample ID: Trap #3
Collection Date: 5/21/2014 10:35:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
Mercury	140	10	0.20		µg/L	50	5/29/2014
METALS BY ICP-MS							
Silver	570	10	0.20		µg/L	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20
Lab ID: 14051119-04

Client Sample ID: Trap #4
Collection Date: 5/21/2014 10:37:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
Mercury	0.23	0.20	0.20		µg/L	1	5/29/2014
METALS BY ICP-MS							
Silver	0.34	0.20	0.20		µg/L	1	5/27/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20
Lab ID: 14051119-05

Client Sample ID: Trap #5
Collection Date: 5/21/2014 8:55:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
Mercury	86	10	0.20		µg/L	50	5/29/2014
METALS BY ICP-MS							
Silver	260	0.20	0.20		µg/L	1	5/27/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Project: Y-Site - 5700L2-8-20
WorkOrder: 14051119

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: 59038		Instrument ID HG1		Method: SW7470								
Sample ID: MBLK-59038-59038						Units: mg/L		Analysis Date: 5/27/2014 04:37 PM				
Client ID:		Run ID: HG1_140527A				SeqNo: 2782013		Prep Date: 5/27/2014		DF: 1		
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		ND		0.00020								
LCS		Sample ID: LCS-59038-59038				Units: mg/L		Analysis Date: 5/27/2014 04:39 PM				
Client ID:		Run ID: HG1_140527A				SeqNo: 2782014		Prep Date: 5/27/2014		DF: 1		
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.002045		0.00020	0.002	0	102	80-120	0	0	0	
MS		Sample ID: 14051021-02AMS				Units: mg/L		Analysis Date: 5/27/2014 04:51 PM				
Client ID:		Run ID: HG1_140527A				SeqNo: 2782019		Prep Date: 5/27/2014		DF: 1		
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.02032		0.0020	0.02	0.0002	101	75-125	0	0	0	
MSD		Sample ID: 14051021-02AMSD				Units: mg/L		Analysis Date: 5/27/2014 04:53 PM				
Client ID:		Run ID: HG1_140527A				SeqNo: 2782020		Prep Date: 5/27/2014		DF: 1		
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.02055		0.0020	0.02	0.0002	102	75-125	0.02032	1.13	20	

The following samples were analyzed in this batch:

14051119-01A	14051119-02A	14051119-03A
14051119-04A	14051119-05A	

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58982** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK	Sample ID: MBLK-58982-58982				Units: mg/L		Analysis Date: 5/27/2014 12:19 AM		
Client ID:	Run ID: ICPMS2_140526A				SeqNo: 2780490		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		ND	0.0050						
LCS	Sample ID: LCS-58982-58982				Units: mg/L		Analysis Date: 5/27/2014 12:25 AM		
Client ID:	Run ID: ICPMS2_140526A				SeqNo: 2780491		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		0.09461	0.0050	0.1	0	94.6	80-120	0	
MS	Sample ID: 14051021-02AMS				Units: mg/L		Analysis Date: 5/27/2014 01:12 AM		
Client ID:	Run ID: ICPMS2_140526A				SeqNo: 2780499		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		0.9123	0.050	1	-0.0001301	91.2	75-125	0	
MS	Sample ID: 14051136-01DMS				Units: mg/L		Analysis Date: 5/27/2014 03:11 AM		
Client ID:	Run ID: ICPMS2_140526A				SeqNo: 2780518		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		0.09145	0.0050	0.1	-4.51E-06	91.5	75-125	0	
MSD	Sample ID: 14051021-02AMSD				Units: mg/L		Analysis Date: 5/27/2014 01:18 AM		
Client ID:	Run ID: ICPMS2_140526A				SeqNo: 2780500		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		0.8996	0.050	1	-0.0001301	90	75-125	0.9123	1.4 20
MSD	Sample ID: 14051136-01DMSD				Units: mg/L		Analysis Date: 5/27/2014 05:07 PM		
Client ID:	Run ID: ICPMS2_140527A				SeqNo: 2782088		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		0.09479	0.0050	0.1	0	94.8	75-125	0.09145	3.59 20

The following samples were analyzed in this batch:

14051119-01A	14051119-02A	14051119-03A
14051119-04A	14051119-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051119
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **59035** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK		Sample ID: MBLK-59035-59035			Units: mg/L		Analysis Date: 5/28/2014 02:13 AM		
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782508		Prep Date: 5/27/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		ND		0.0050					
LCS		Sample ID: LCS-59035-59035			Units: mg/L		Analysis Date: 5/28/2014 02:19 AM		
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782509		Prep Date: 5/27/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		0.09407	0.0050	0.1	0	94.1	80-120	0	
MS		Sample ID: 1405998-08AMS			Units: mg/L		Analysis Date: 5/28/2014 03:38 AM		
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782521		Prep Date: 5/27/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		1.789	0.050	2	-7.994E-05	89.5	75-125	0	
MSD		Sample ID: 1405998-08AMSD			Units: mg/L		Analysis Date: 5/28/2014 04:01 AM		
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782525		Prep Date: 5/27/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Silver		1.759	0.050	2	-7.994E-05	88	75-125	1.789	1.69 20

The following samples were analyzed in this batch:

14051119-
03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Environmental

Cincinnati, OH
+1 513 733 5336Fort Collins, CO
+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 106277

Houston, TX
+1 281 530 5656Spring City, PA
+1 610 948 4903South Charleston, WV
+1 304 356 3168Middletown, PA
+1 717 944 5541Salt Lake City, UT
+1 801 266 7700York, PA
+1 717 505 5280

ALS Work Order #: 14051119

Customer Information		Project Information			Parameter/Method Request for Analysis												
Purchase Order	5700LZ - 8-20	Project Name	Y-SITE			A	Mercury										
Work Order		Project Number	5700LZ-8-20			B	Silver										
Company Name	AKT Peerless Environmental Services	Bill To Company	AKT Peerless			C											
Send Report To		Invoice Attn	Accounts Payable			D											
Address	1000 S Washington Suite 104	Address	214 Janes Avenue			E											
City/State/Zip	Lansing, MI 48933	City/State/Zip	Saginaw, MI 48607			G											
Phone	(517) 482-9227	Phone	(989) 754-9896			H											
Fax	(517) 482-9229	Fax				I											
e-Mail Address		e-Mail Address	BKilmer@aktpeerless.com			J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TRAP #1	5/21/14	1030	W	2	1	X	X									
2	TRAP #2		1032		2	1	X	X									
3	TRAP #3		1035		2	1	X	X									
4	TRAP #4		1037		2	1	X	X									
5	TRAP #5		0855		2	1	X	X									
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign			Shipment Method	Required Turnaround Time: (Check Box)			Results Due Date:							
<i>John Dornas S. Kilmer</i>				<input type="checkbox"/> Std 10 WK Days	<input checked="" type="checkbox"/> 5 WK Days	<input type="checkbox"/> Other 2 WK Days	<input type="checkbox"/> 24 Hour							
Prelimisued by: <i>John Dornas S. Kilmer</i>	Date: 5/21/14	Time: 1630	Received by: <i>B. Bell</i>	Notes:										
Relinquished by: <i>John Dornas S. Kilmer</i>	Date: 5/21/14	Time: 1700	Received by (Laboratory): <i>B. Bell</i>						Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)			
Logged by (Laboratory): <i>DFS</i>	Date: 5/22/14	Time: 1000	Checked by (Laboratory):							4.02	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> TRRP CheckList		
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035											<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> TRRP Level IV		
										<input type="checkbox"/> Level IV SW846/CLP	<input type="checkbox"/> Other			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: AKT PEERLESS - LANSING

Date/Time Received: 21-May-14 17:00

Work Order: 14051119

Received by: DS

Checklist completed by <u>Diane Sham</u> eSignature	22-May-14 Date	Reviewed by: eSignature	Date
--	-------------------	----------------------------	------

Matrices: Water

Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.0 c</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>5/22/2014 1:58:59 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



30-May-2014

Joshua Gekeler
AKT Peerless Environmental Services
1000 S Washington
Suite 104
Lansing, MI 48933

Re: **Y-Site - 5700L2-8-20**

Work Order: **14051143**

Dear Joshua,

ALS Environmental received 3 samples on 21-May-2014 05:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 41.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Joseph Ribar".

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager



Certificate No: MI: 0022

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: AKT Peerless Environmental Services
Project: Y-Site - 5700L2-8-20
Work Order: **14051143**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14051143-01	SB-1	Water		5/21/2014 11:02	5/21/2014 17:00	<input type="checkbox"/>
14051143-02	SB-2	Water		5/21/2014 11:12	5/21/2014 17:00	<input type="checkbox"/>
14051143-03	SB-3	Water		5/21/2014 11:20	5/21/2014 17:00	<input type="checkbox"/>

Client: AKT Peerless Environmental Services
Project: Y-Site - 5700L2-8-20
Work Order: 14051143

Case Narrative**QC Summary****Volatile Organic Compounds**

Batch R141494, Method 8260, Sample VLCSW1-140528: The LCS recovery was above the upper control limit. All sample results in the batch were non-detect. No qualification is necessary for this analyte: Methyl Iodide and n-propylbenzene

Batch R141494, Method 8260, Sample 14051143-02A MSD: The RPD between the MS and MSD was out of control. The corresponding result should be considered estimated for this compound: Bromomethane

Batch R141494, Method 8260, Sample 14051143-02A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: Methyl Iodide

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-01

Client Sample ID: SB-1
Collection Date: 5/21/2014 11:02:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1221	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1232	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1242	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1248	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1254	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1260	ND	0.20	0.20		µg/L	1	5/23/2014
<i>Surr: Decachlorobiphenyl</i>	49.0	40-110			%REC	1	5/23/2014
MERCURY BY CVAA							
Mercury	ND	0.20	0.20		µg/L	1	5/27/2014
METALS BY ICP-MS							
Arsenic	ND	5.0	5.0		µg/L	1	5/27/2014
Barium	ND	100	100		µg/L	1	5/27/2014
Cadmium	1.4	1.0	1.0		µg/L	1	5/27/2014
Chromium	ND	10	10		µg/L	1	5/27/2014
Copper	9.6	4.0	4.0		µg/L	1	5/27/2014
Lead	ND	3.0	3.0		µg/L	1	5/27/2014
Selenium	ND	5.0	5.0		µg/L	1	5/27/2014
Silver	ND	0.20	0.20		µg/L	1	5/27/2014
Zinc	700	50	50		µg/L	1	5/27/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	5.0	5.0		µg/L	1	5/23/2014
1,2-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
1,3-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
1,4-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
2,4,5-Trichlorophenol	ND	5.0	5.0		µg/L	1	5/23/2014
2,4,6-Trichlorophenol	ND	4.0	4.0		µg/L	1	5/23/2014
2,4-Dichlorophenol	ND	10	10		µg/L	1	5/23/2014
2,4-Dimethylphenol	ND	5.0	5.0		µg/L	1	5/23/2014
2,4-Dinitrophenol	ND	25	25		µg/L	1	5/23/2014
2,4-Dinitrotoluene	ND	5.0	5.0		µg/L	1	5/23/2014
2,6-Dinitrotoluene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Chloronaphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Chlorophenol	ND	10	10		µg/L	1	5/23/2014
2-Methylnaphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Methylphenol	ND	10	10		µg/L	1	5/23/2014
2-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
2-Nitrophenol	ND	5.0	5.0		µg/L	1	5/23/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-01

Client Sample ID: SB-1
Collection Date: 5/21/2014 11:02:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND	1.0	0.39		µg/L	1	5/23/2014
3-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
4,6-Dinitro-2-methylphenol	ND	20	20		µg/L	1	5/23/2014
4-Bromophenyl phenyl ether	ND	5.0	5.0		µg/L	1	5/23/2014
4-Chloro-3-methylphenol	ND	5.0	5.0		µg/L	1	5/23/2014
4-Chloroaniline	ND	10	10		µg/L	1	5/23/2014
4-Chlorophenyl phenyl ether	ND	5.0	5.0		µg/L	1	5/23/2014
4-Methylphenol	ND	10	10		µg/L	1	5/23/2014
4-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
4-Nitrophenol	ND	25	25		µg/L	1	5/23/2014
Acenaphthene	ND	5.0	5.0		µg/L	1	5/23/2014
Acenaphthylene	ND	5.0	5.0		µg/L	1	5/23/2014
Anthracene	ND	5.0	5.0		µg/L	1	5/23/2014
Benzo(a)anthracene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(a)pyrene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(b)fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(g,h,i)perylene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(k)fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Bis(2-chloroethoxy)methane	ND	5.0	5.0		µg/L	1	5/23/2014
Bis(2-chloroethyl)ether	ND	1.0	1.0		µg/L	1	5/23/2014
Bis(2-chloroisopropyl)ether	ND	5.0	5.0		µg/L	1	5/23/2014
Bis(2-ethylhexyl)phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Butyl benzyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Carbazole	ND	10	10		µg/L	1	5/23/2014
Chrysene	ND	1.0	1.0		µg/L	1	5/23/2014
Dibenzo(a,h)anthracene	ND	2.0	2.0		µg/L	1	5/23/2014
Dibenzofuran	ND	4.0	4.0		µg/L	1	5/23/2014
Diethyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Dimethyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Di-n-butyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Di-n-octyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Fluorene	ND	5.0	5.0		µg/L	1	5/23/2014
Hexachlorobenzene	ND	1.0	0.20		µg/L	1	5/23/2014
Hexachlorobutadiene	ND	1.0	0.30		µg/L	1	5/23/2014
Hexachlorocyclopentadiene	ND	5.0	5.0		µg/L	1	5/23/2014
Hexachloroethane	ND	5.0	5.0		µg/L	1	5/23/2014
Indeno(1,2,3-cd)pyrene	ND	2.0	2.0		µg/L	1	5/23/2014
Isophorone	ND	5.0	5.0		µg/L	1	5/23/2014
Naphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
Nitrobenzene	ND	3.0	3.0		µg/L	1	5/23/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-01

Client Sample ID: SB-1
Collection Date: 5/21/2014 11:02:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
N-Nitrosodi-n-propylamine	ND	5.0	5.0		µg/L	1	5/23/2014
N-Nitrosodiphenylamine	ND	5.0	5.0		µg/L	1	5/23/2014
Pentachlorophenol	ND	2.0	2.0		µg/L	1	5/23/2014
Phenanthrene	ND	2.0	2.0		µg/L	1	5/23/2014
Phenol	ND	5.0	5.0		µg/L	1	5/23/2014
Pyrene	ND	5.0	5.0		µg/L	1	5/23/2014
<i>Surr: 2,4,6-Tribromophenol</i>	85.8	32-115			%REC	1	5/23/2014
<i>Surr: 2-Fluorobiphenyl</i>	64.4	32-100			%REC	1	5/23/2014
<i>Surr: 2-Fluorophenol</i>	43.1	22-59			%REC	1	5/23/2014
<i>Surr: 4-Terphenyl-d14</i>	73.0	23-112			%REC	1	5/23/2014
<i>Surr: Nitrobenzene-d5</i>	60.5	31-93			%REC	1	5/23/2014
<i>Surr: Phenol-d6</i>	18.6	13-36			%REC	1	5/23/2014
VOLATILE ORGANIC COMPOUNDS							
			SW8260				Analyst: AK
1,1,1,2-Tetrachloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,1-Trichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2,2-Tetrachloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2-Trichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2-Trichlorotrifluoroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1-Dichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2,3-Trichloropropane	ND	1.0	1.0		µg/L	1	5/28/2014
1,2,4-Trichlorobenzene	ND	5.0	5.0		µg/L	1	5/28/2014
1,2,4-Trimethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dibromo-3-chloropropane	ND	1.0	0.20		µg/L	1	5/28/2014
1,2-Dibromoethane	ND	1.0	0.050		µg/L	1	5/28/2014
1,2-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dichloropropane	ND	1.0	1.0		µg/L	1	5/28/2014
1,3,5-Trimethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,3-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,4-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
2-Butanone	ND	25	25		µg/L	1	5/28/2014
2-Hexanone	ND	50	50		µg/L	1	5/28/2014
2-Methylnaphthalene	ND	5.0	5.0		µg/L	1	5/28/2014
4-Methyl-2-pentanone	ND	50	50		µg/L	1	5/28/2014
Acetone	ND	50	50		µg/L	1	5/28/2014
Acrylonitrile	ND	2.0	2.0		µg/L	1	5/28/2014
Benzene	ND	1.0	1.0		µg/L	1	5/28/2014
Bromochloromethane	ND	1.0	1.0		µg/L	1	5/28/2014
Bromodichloromethane	ND	1.0	1.0		µg/L	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-01

Client Sample ID: SB-1
Collection Date: 5/21/2014 11:02:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromoform	ND	1.0	1.0		µg/L	1	5/28/2014
Bromomethane	ND	5.0	5.0		µg/L	1	5/28/2014
Carbon disulfide	ND	5.0	5.0		µg/L	1	5/28/2014
Carbon tetrachloride	ND	1.0	1.0		µg/L	1	5/28/2014
Chlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
Chloroethane	ND	5.0	5.0		µg/L	1	5/28/2014
Chloroform	ND	1.0	1.0		µg/L	1	5/28/2014
Chloromethane	ND	5.0	5.0		µg/L	1	5/28/2014
cis-1,2-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
cis-1,3-Dichloropropene	ND	1.0	1.0		µg/L	1	5/28/2014
Dibromochloromethane	ND	5.0	5.0		µg/L	1	5/28/2014
Dibromomethane	ND	5.0	5.0		µg/L	1	5/28/2014
Dichlorodifluoromethane	ND	5.0	5.0		µg/L	1	5/28/2014
Diethyl ether	ND	10	10		µg/L	1	5/28/2014
Ethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
Hexachloroethane	ND	5.0	5.0		µg/L	1	5/28/2014
Isopropylbenzene	ND	5.0	5.0		µg/L	1	5/28/2014
m,p-Xylene	ND	2.0	2.0		µg/L	1	5/28/2014
Methyl iodide	ND	1.0	1.0		µg/L	1	5/28/2014
Methyl tert-butyl ether	ND	5.0	5.0		µg/L	1	5/28/2014
Methylene chloride	ND	5.0	5.0		µg/L	1	5/28/2014
Naphthalene	ND	5.0	5.0		µg/L	1	5/28/2014
n-Propylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
o-Xylene	ND	1.0	1.0		µg/L	1	5/28/2014
Styrene	ND	1.0	1.0		µg/L	1	5/28/2014
Tetrachloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
Toluene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,2-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,3-Dichloropropene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,4-Dichloro-2-butene	ND	1.0	1.0		µg/L	1	5/28/2014
Trichloroethene	2.5	1.0	1.0		µg/L	1	5/28/2014
Trichlorofluoromethane	ND	1.0	1.0		µg/L	1	5/28/2014
Vinyl acetate	ND	100	100		µg/L	1	5/28/2014
Vinyl chloride	ND	1.0	1.0		µg/L	1	5/28/2014
Xylenes, Total	ND	3.0	3.0		µg/L	1	5/28/2014
Surr: 1,2-Dichloroethane-d4	99.4	75-120			%REC	1	5/28/2014
Surr: 4-Bromofluorobenzene	95.5	80-110			%REC	1	5/28/2014
Surr: Dibromofluoromethane	99.8	85-115			%REC	1	5/28/2014
Surr: Toluene-d8	98.0	85-110			%REC	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-02

Client Sample ID: SB-2
Collection Date: 5/21/2014 11:12:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1221	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1232	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1242	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1248	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1254	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1260	ND	0.20	0.20		µg/L	1	5/23/2014
<i>Surr: Decachlorobiphenyl</i>	47.0	40-110			%REC	1	5/23/2014
MERCURY BY CVAA							
Mercury	ND	0.20	0.20		µg/L	1	5/27/2014
METALS BY ICP-MS							
Arsenic	7.7	5.0	5.0		µg/L	1	5/27/2014
Barium	ND	100	100		µg/L	1	5/27/2014
Cadmium	ND	1.0	1.0		µg/L	1	5/27/2014
Chromium	ND	10	10		µg/L	1	5/27/2014
Copper	38	4.0	4.0		µg/L	1	5/27/2014
Lead	4.0	3.0	3.0		µg/L	1	5/27/2014
Selenium	ND	5.0	5.0		µg/L	1	5/27/2014
Silver	ND	0.20	0.20		µg/L	1	5/27/2014
Zinc	400	50	50		µg/L	1	5/27/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	5.0	5.0		µg/L	1	5/23/2014
1,2-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
1,3-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
1,4-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
2,4,5-Trichlorophenol	ND	5.0	5.0		µg/L	1	5/23/2014
2,4,6-Trichlorophenol	ND	4.0	4.0		µg/L	1	5/23/2014
2,4-Dichlorophenol	ND	10	10		µg/L	1	5/23/2014
2,4-Dimethylphenol	ND	5.0	5.0		µg/L	1	5/23/2014
2,4-Dinitrophenol	ND	25	25		µg/L	1	5/23/2014
2,4-Dinitrotoluene	ND	5.0	5.0		µg/L	1	5/23/2014
2,6-Dinitrotoluene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Chloronaphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Chlorophenol	ND	10	10		µg/L	1	5/23/2014
2-Methylnaphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Methylphenol	ND	10	10		µg/L	1	5/23/2014
2-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
2-Nitrophenol	ND	5.0	5.0		µg/L	1	5/23/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-02

Client Sample ID: SB-2
Collection Date: 5/21/2014 11:12:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND	1.0	0.39		µg/L	1	5/23/2014
3-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
4,6-Dinitro-2-methylphenol	ND	20	20		µg/L	1	5/23/2014
4-Bromophenyl phenyl ether	ND	5.0	5.0		µg/L	1	5/23/2014
4-Chloro-3-methylphenol	ND	5.0	5.0		µg/L	1	5/23/2014
4-Chloroaniline	ND	10	10		µg/L	1	5/23/2014
4-Chlorophenyl phenyl ether	ND	5.0	5.0		µg/L	1	5/23/2014
4-Methylphenol	ND	10	10		µg/L	1	5/23/2014
4-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
4-Nitrophenol	ND	25	25		µg/L	1	5/23/2014
Acenaphthene	ND	5.0	5.0		µg/L	1	5/23/2014
Acenaphthylene	ND	5.0	5.0		µg/L	1	5/23/2014
Anthracene	ND	5.0	5.0		µg/L	1	5/23/2014
Benzo(a)anthracene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(a)pyrene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(b)fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(g,h,i)perylene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(k)fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Bis(2-chloroethoxy)methane	ND	5.0	5.0		µg/L	1	5/23/2014
Bis(2-chloroethyl)ether	ND	1.0	1.0		µg/L	1	5/23/2014
Bis(2-chloroisopropyl)ether	ND	5.0	5.0		µg/L	1	5/23/2014
Bis(2-ethylhexyl)phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Butyl benzyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Carbazole	ND	10	10		µg/L	1	5/23/2014
Chrysene	ND	1.0	1.0		µg/L	1	5/23/2014
Dibenzo(a,h)anthracene	ND	2.0	2.0		µg/L	1	5/23/2014
Dibenzofuran	ND	4.0	4.0		µg/L	1	5/23/2014
Diethyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Dimethyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Di-n-butyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Di-n-octyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Fluorene	ND	5.0	5.0		µg/L	1	5/23/2014
Hexachlorobenzene	ND	1.0	0.20		µg/L	1	5/23/2014
Hexachlorobutadiene	ND	1.0	0.30		µg/L	1	5/23/2014
Hexachlorocyclopentadiene	ND	5.0	5.0		µg/L	1	5/23/2014
Hexachloroethane	ND	5.0	5.0		µg/L	1	5/23/2014
Indeno(1,2,3-cd)pyrene	ND	2.0	2.0		µg/L	1	5/23/2014
Isophorone	ND	5.0	5.0		µg/L	1	5/23/2014
Naphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
Nitrobenzene	ND	3.0	3.0		µg/L	1	5/23/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-02

Client Sample ID: SB-2
Collection Date: 5/21/2014 11:12:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
N-Nitrosodi-n-propylamine	ND	5.0	5.0		µg/L	1	5/23/2014
N-Nitrosodiphenylamine	ND	5.0	5.0		µg/L	1	5/23/2014
Pentachlorophenol	ND	2.0	2.0		µg/L	1	5/23/2014
Phenanthrene	ND	2.0	2.0		µg/L	1	5/23/2014
Phenol	ND	5.0	5.0		µg/L	1	5/23/2014
Pyrene	ND	5.0	5.0		µg/L	1	5/23/2014
<i>Surr: 2,4,6-Tribromophenol</i>	84.1	32-115			%REC	1	5/23/2014
<i>Surr: 2-Fluorobiphenyl</i>	65.9	32-100			%REC	1	5/23/2014
<i>Surr: 2-Fluorophenol</i>	40.6	22-59			%REC	1	5/23/2014
<i>Surr: 4-Terphenyl-d14</i>	85.1	23-112			%REC	1	5/23/2014
<i>Surr: Nitrobenzene-d5</i>	63.3	31-93			%REC	1	5/23/2014
<i>Surr: Phenol-d6</i>	19.0	13-36			%REC	1	5/23/2014

VOLATILE ORGANIC COMPOUNDS**SW8260**

Analyst: AK

1,1,1,2-Tetrachloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,1-Trichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2,2-Tetrachloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2-Trichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2-Trichlorotrifluoroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1-Dichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2,3-Trichloropropane	ND	1.0	1.0		µg/L	1	5/28/2014
1,2,4-Trichlorobenzene	ND	5.0	5.0		µg/L	1	5/28/2014
1,2,4-Trimethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dibromo-3-chloropropane	ND	1.0	0.20		µg/L	1	5/28/2014
1,2-Dibromoethane	ND	1.0	0.050		µg/L	1	5/28/2014
1,2-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dichloropropane	ND	1.0	1.0		µg/L	1	5/28/2014
1,3,5-Trimethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,3-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,4-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
2-Butanone	ND	25	25		µg/L	1	5/28/2014
2-Hexanone	ND	50	50		µg/L	1	5/28/2014
2-Methylnaphthalene	ND	5.0	5.0		µg/L	1	5/28/2014
4-Methyl-2-pentanone	ND	50	50		µg/L	1	5/28/2014
Acetone	ND	50	50		µg/L	1	5/28/2014
Acrylonitrile	ND	2.0	2.0		µg/L	1	5/28/2014
Benzene	ND	1.0	1.0		µg/L	1	5/28/2014
Bromochloromethane	ND	1.0	1.0		µg/L	1	5/28/2014
Bromodichloromethane	ND	1.0	1.0		µg/L	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-02

Client Sample ID: SB-2
Collection Date: 5/21/2014 11:12:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromoform	ND	1.0	1.0		µg/L	1	5/28/2014
Bromomethane	ND	5.0	5.0		µg/L	1	5/28/2014
Carbon disulfide	ND	5.0	5.0		µg/L	1	5/28/2014
Carbon tetrachloride	ND	1.0	1.0		µg/L	1	5/28/2014
Chlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
Chloroethane	ND	5.0	5.0		µg/L	1	5/28/2014
Chloroform	ND	1.0	1.0		µg/L	1	5/28/2014
Chloromethane	ND	5.0	5.0		µg/L	1	5/28/2014
cis-1,2-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
cis-1,3-Dichloropropene	ND	1.0	1.0		µg/L	1	5/28/2014
Dibromochloromethane	ND	5.0	5.0		µg/L	1	5/28/2014
Dibromomethane	ND	5.0	5.0		µg/L	1	5/28/2014
Dichlorodifluoromethane	ND	5.0	5.0		µg/L	1	5/28/2014
Diethyl ether	ND	10	10		µg/L	1	5/28/2014
Ethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
Hexachloroethane	ND	5.0	5.0		µg/L	1	5/28/2014
Isopropylbenzene	ND	5.0	5.0		µg/L	1	5/28/2014
m,p-Xylene	ND	2.0	2.0		µg/L	1	5/28/2014
Methyl iodide	ND	1.0	1.0		µg/L	1	5/28/2014
Methyl tert-butyl ether	ND	5.0	5.0		µg/L	1	5/28/2014
Methylene chloride	ND	5.0	5.0		µg/L	1	5/28/2014
Naphthalene	ND	5.0	5.0		µg/L	1	5/28/2014
n-Propylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
o-Xylene	ND	1.0	1.0		µg/L	1	5/28/2014
Styrene	ND	1.0	1.0		µg/L	1	5/28/2014
Tetrachloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
Toluene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,2-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,3-Dichloropropene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,4-Dichloro-2-butene	ND	1.0	1.0		µg/L	1	5/28/2014
Trichloroethene	2.4	1.0	1.0		µg/L	1	5/28/2014
Trichlorofluoromethane	ND	1.0	1.0		µg/L	1	5/28/2014
Vinyl acetate	ND	100	100		µg/L	1	5/28/2014
Vinyl chloride	ND	1.0	1.0		µg/L	1	5/28/2014
Xylenes, Total	ND	3.0	3.0		µg/L	1	5/28/2014
Surr: 1,2-Dichloroethane-d4	97.5	75-120			%REC	1	5/28/2014
Surr: 4-Bromofluorobenzene	97.0	80-110			%REC	1	5/28/2014
Surr: Dibromofluoromethane	98.6	85-115			%REC	1	5/28/2014
Surr: Toluene-d8	99.0	85-110			%REC	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-03

Client Sample ID: SB-3
Collection Date: 5/21/2014 11:20:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
PCBS							
Aroclor 1016	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1221	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1232	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1242	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1248	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1254	ND	0.20	0.20		µg/L	1	5/23/2014
Aroclor 1260	ND	0.20	0.20		µg/L	1	5/23/2014
<i>Surr: Decachlorobiphenyl</i>	50.0	40-110			%REC	1	5/23/2014
MERCURY BY CVAA							
Mercury	ND	0.20	0.20		µg/L	1	5/27/2014
METALS BY ICP-MS							
Arsenic	7.9	5.0	5.0		µg/L	1	5/28/2014
Barium	ND	100	100		µg/L	1	5/28/2014
Cadmium	3.1	1.0	1.0		µg/L	1	5/28/2014
Chromium	ND	10	10		µg/L	1	5/28/2014
Copper	27	4.0	4.0		µg/L	1	5/28/2014
Lead	33	3.0	3.0		µg/L	1	5/28/2014
Selenium	ND	5.0	5.0		µg/L	1	5/28/2014
Silver	ND	0.20	0.20		µg/L	1	5/28/2014
Zinc	1,900	100	50		µg/L	10	5/28/2014
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	5.0	5.0		µg/L	1	5/23/2014
1,2-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
1,3-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
1,4-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/23/2014
2,4,5-Trichlorophenol	ND	5.0	5.0		µg/L	1	5/23/2014
2,4,6-Trichlorophenol	ND	4.0	4.0		µg/L	1	5/23/2014
2,4-Dichlorophenol	ND	10	10		µg/L	1	5/23/2014
2,4-Dimethylphenol	ND	5.0	5.0		µg/L	1	5/23/2014
2,4-Dinitrophenol	ND	25	25		µg/L	1	5/23/2014
2,4-Dinitrotoluene	ND	5.0	5.0		µg/L	1	5/23/2014
2,6-Dinitrotoluene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Chloronaphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Chlorophenol	ND	10	10		µg/L	1	5/23/2014
2-Methylnaphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
2-Methylphenol	ND	10	10		µg/L	1	5/23/2014
2-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
2-Nitrophenol	ND	5.0	5.0		µg/L	1	5/23/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-03

Client Sample ID: SB-3
Collection Date: 5/21/2014 11:20:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND	1.0	0.39		µg/L	1	5/23/2014
3-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
4,6-Dinitro-2-methylphenol	ND	20	20		µg/L	1	5/23/2014
4-Bromophenyl phenyl ether	ND	5.0	5.0		µg/L	1	5/23/2014
4-Chloro-3-methylphenol	ND	5.0	5.0		µg/L	1	5/23/2014
4-Chloroaniline	ND	10	10		µg/L	1	5/23/2014
4-Chlorophenyl phenyl ether	ND	5.0	5.0		µg/L	1	5/23/2014
4-Methylphenol	ND	10	10		µg/L	1	5/23/2014
4-Nitroaniline	ND	25	25		µg/L	1	5/23/2014
4-Nitrophenol	ND	25	25		µg/L	1	5/23/2014
Acenaphthene	ND	5.0	5.0		µg/L	1	5/23/2014
Acenaphthylene	ND	5.0	5.0		µg/L	1	5/23/2014
Anthracene	ND	5.0	5.0		µg/L	1	5/23/2014
Benzo(a)anthracene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(a)pyrene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(b)fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(g,h,i)perylene	ND	1.0	1.0		µg/L	1	5/23/2014
Benzo(k)fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Bis(2-chloroethoxy)methane	ND	5.0	5.0		µg/L	1	5/23/2014
Bis(2-chloroethyl)ether	ND	1.0	1.0		µg/L	1	5/23/2014
Bis(2-chloroisopropyl)ether	ND	5.0	5.0		µg/L	1	5/23/2014
Bis(2-ethylhexyl)phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Butyl benzyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Carbazole	ND	10	10		µg/L	1	5/23/2014
Chrysene	ND	1.0	1.0		µg/L	1	5/23/2014
Dibenzo(a,h)anthracene	ND	2.0	2.0		µg/L	1	5/23/2014
Dibenzofuran	ND	4.0	4.0		µg/L	1	5/23/2014
Diethyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Dimethyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Di-n-butyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Di-n-octyl phthalate	ND	5.0	5.0		µg/L	1	5/23/2014
Fluoranthene	ND	1.0	1.0		µg/L	1	5/23/2014
Fluorene	ND	5.0	5.0		µg/L	1	5/23/2014
Hexachlorobenzene	ND	1.0	0.20		µg/L	1	5/23/2014
Hexachlorobutadiene	ND	1.0	0.30		µg/L	1	5/23/2014
Hexachlorocyclopentadiene	ND	5.0	5.0		µg/L	1	5/23/2014
Hexachloroethane	ND	5.0	5.0		µg/L	1	5/23/2014
Indeno(1,2,3-cd)pyrene	ND	2.0	2.0		µg/L	1	5/23/2014
Isophorone	ND	5.0	5.0		µg/L	1	5/23/2014
Naphthalene	ND	5.0	5.0		µg/L	1	5/23/2014
Nitrobenzene	ND	3.0	3.0		µg/L	1	5/23/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-03

Client Sample ID: SB-3
Collection Date: 5/21/2014 11:20:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
N-Nitrosodi-n-propylamine	ND	5.0	5.0		µg/L	1	5/23/2014
N-Nitrosodiphenylamine	ND	5.0	5.0		µg/L	1	5/23/2014
Pentachlorophenol	ND	2.0	2.0		µg/L	1	5/23/2014
Phenanthrene	ND	2.0	2.0		µg/L	1	5/23/2014
Phenol	ND	5.0	5.0		µg/L	1	5/23/2014
Pyrene	ND	5.0	5.0		µg/L	1	5/23/2014
<i>Surr: 2,4,6-Tribromophenol</i>	81.8	32-115			%REC	1	5/23/2014
<i>Surr: 2-Fluorobiphenyl</i>	64.2	32-100			%REC	1	5/23/2014
<i>Surr: 2-Fluorophenol</i>	52.0	22-59			%REC	1	5/23/2014
<i>Surr: 4-Terphenyl-d14</i>	92.1	23-112			%REC	1	5/23/2014
<i>Surr: Nitrobenzene-d5</i>	64.6	31-93			%REC	1	5/23/2014
<i>Surr: Phenol-d6</i>	27.2	13-36			%REC	1	5/23/2014
VOLATILE ORGANIC COMPOUNDS							
			SW8260				Analyst: AK
1,1,1,2-Tetrachloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,1-Trichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2,2-Tetrachloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2-Trichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1,2-Trichlorotrifluoroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1-Dichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,1-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2,3-Trichloropropane	ND	1.0	1.0		µg/L	1	5/28/2014
1,2,4-Trichlorobenzene	ND	5.0	5.0		µg/L	1	5/28/2014
1,2,4-Trimethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dibromo-3-chloropropane	ND	1.0	0.20		µg/L	1	5/28/2014
1,2-Dibromoethane	ND	1.0	0.050		µg/L	1	5/28/2014
1,2-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dichloroethane	ND	1.0	1.0		µg/L	1	5/28/2014
1,2-Dichloropropane	ND	1.0	1.0		µg/L	1	5/28/2014
1,3,5-Trimethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,3-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
1,4-Dichlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
2-Butanone	ND	25	25		µg/L	1	5/28/2014
2-Hexanone	ND	50	50		µg/L	1	5/28/2014
2-Methylnaphthalene	ND	5.0	5.0		µg/L	1	5/28/2014
4-Methyl-2-pentanone	ND	50	50		µg/L	1	5/28/2014
Acetone	ND	50	50		µg/L	1	5/28/2014
Acrylonitrile	ND	2.0	2.0		µg/L	1	5/28/2014
Benzene	ND	1.0	1.0		µg/L	1	5/28/2014
Bromochloromethane	ND	1.0	1.0		µg/L	1	5/28/2014
Bromodichloromethane	ND	1.0	1.0		µg/L	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 30-May-14

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20
Lab ID: 14051143-03

Client Sample ID: SB-3
Collection Date: 5/21/2014 11:20:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Bromoform	ND	1.0	1.0		µg/L	1	5/28/2014
Bromomethane	ND	5.0	5.0		µg/L	1	5/28/2014
Carbon disulfide	ND	5.0	5.0		µg/L	1	5/28/2014
Carbon tetrachloride	ND	1.0	1.0		µg/L	1	5/28/2014
Chlorobenzene	ND	1.0	1.0		µg/L	1	5/28/2014
Chloroethane	ND	5.0	5.0		µg/L	1	5/28/2014
Chloroform	ND	1.0	1.0		µg/L	1	5/28/2014
Chloromethane	ND	5.0	5.0		µg/L	1	5/28/2014
cis-1,2-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
cis-1,3-Dichloropropene	ND	1.0	1.0		µg/L	1	5/28/2014
Dibromochloromethane	ND	5.0	5.0		µg/L	1	5/28/2014
Dibromomethane	ND	5.0	5.0		µg/L	1	5/28/2014
Dichlorodifluoromethane	ND	5.0	5.0		µg/L	1	5/28/2014
Diethyl ether	ND	10	10		µg/L	1	5/28/2014
Ethylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
Hexachloroethane	ND	5.0	5.0		µg/L	1	5/28/2014
Isopropylbenzene	ND	5.0	5.0		µg/L	1	5/28/2014
m,p-Xylene	ND	2.0	2.0		µg/L	1	5/28/2014
Methyl iodide	ND	1.0	1.0		µg/L	1	5/28/2014
Methyl tert-butyl ether	ND	5.0	5.0		µg/L	1	5/28/2014
Methylene chloride	ND	5.0	5.0		µg/L	1	5/28/2014
Naphthalene	ND	5.0	5.0		µg/L	1	5/28/2014
n-Propylbenzene	ND	1.0	1.0		µg/L	1	5/28/2014
o-Xylene	ND	1.0	1.0		µg/L	1	5/28/2014
Styrene	ND	1.0	1.0		µg/L	1	5/28/2014
Tetrachloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
Toluene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,2-Dichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,3-Dichloropropene	ND	1.0	1.0		µg/L	1	5/28/2014
trans-1,4-Dichloro-2-butene	ND	1.0	1.0		µg/L	1	5/28/2014
Trichloroethene	ND	1.0	1.0		µg/L	1	5/28/2014
Trichlorofluoromethane	ND	1.0	1.0		µg/L	1	5/28/2014
Vinyl acetate	ND	100	100		µg/L	1	5/28/2014
Vinyl chloride	ND	1.0	1.0		µg/L	1	5/28/2014
Xylenes, Total	ND	3.0	3.0		µg/L	1	5/28/2014
Surr: 1,2-Dichloroethane-d4	99.4	75-120			%REC	1	5/28/2014
Surr: 4-Bromofluorobenzene	98.8	80-110			%REC	1	5/28/2014
Surr: Dibromofluoromethane	98.4	85-115			%REC	1	5/28/2014
Surr: Toluene-d8	98.1	85-110			%REC	1	5/28/2014

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless Environmental Services
Project: Y-Site - 5700L2-8-20
WorkOrder: 14051143

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: 58960		Instrument ID GC14		Method: SW8082											
MBLK		Sample ID: PBLKW1-58960-58960			Units: µg/L		Analysis Date: 5/23/2014 06:51 PM								
Client ID:		Run ID: GC14_140523A			SeqNo: 2781653		Prep Date: 5/23/2014		DF: 1						
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Aroclor 1016		ND	0.20												
Aroclor 1221		ND	0.20												
Aroclor 1232		ND	0.20												
Aroclor 1242		ND	0.20												
Aroclor 1248		ND	0.20												
Aroclor 1254		ND	0.20												
Aroclor 1260		ND	0.20												
<i>Surr: Decachlorobiphenyl</i>		0.06	0	0.1	0	60	40-110		0						
LCS		Sample ID: PLCSW1-58960-58960			Units: µg/L		Analysis Date: 5/23/2014 07:07 PM								
Client ID:		Run ID: GC14_140523A			SeqNo: 2781654		Prep Date: 5/23/2014		DF: 1						
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Aroclor 1016		1.963	0.20	2.5	0	78.5	50-130		0						
Aroclor 1260		2	0.20	2.5	0	80	50-130		0						
<i>Surr: Decachlorobiphenyl</i>		0.064	0	0.1	0	64	40-110		0						
MS		Sample ID: 1405668-24A MS			Units: µg/L		Analysis Date: 5/23/2014 07:40 PM								
Client ID:		Run ID: GC14_140523A			SeqNo: 2781671		Prep Date: 5/23/2014		DF: 1						
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Aroclor 1016		19.05	2.0	25	0	76.2	40-140		0						
Aroclor 1260		18.31	2.0	25	0	73.2	40-140		0						
<i>Surr: Decachlorobiphenyl</i>		0.42	0	1	0	42	40-110		0						
MSD		Sample ID: 1405668-24A MSD			Units: µg/L		Analysis Date: 5/23/2014 07:56 PM								
Client ID:		Run ID: GC14_140523A			SeqNo: 2781672		Prep Date: 5/23/2014		DF: 1						
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Aroclor 1016		15.37	2.0	25	0	61.5	40-140		19.05	21.4	50				
Aroclor 1260		16.98	2.0	25	0	67.9	40-140		18.31	7.54	50				
<i>Surr: Decachlorobiphenyl</i>		0.43	0	1	0	43	40-110		0.42	2.35	50				

The following samples were analyzed in this batch:

14051143-01B	14051143-02B	14051143-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **59038** Instrument ID **HG1** Method: **SW7470**

MLK				Sample ID: MLK-59038-59038		Units: mg/L		Analysis Date: 5/27/2014 04:37 PM			
Client ID:		Run ID: HG1_140527A		SeqNo: 2782013		Prep Date: 5/27/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	ND	0.00020									
LCS				Sample ID: LCS-59038-59038		Units: mg/L		Analysis Date: 5/27/2014 04:39 PM			
Client ID:		Run ID: HG1_140527A		SeqNo: 2782014		Prep Date: 5/27/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.002045	0.00020	0.002	0	102	80-120	0				
MS				Sample ID: 14051021-02AMS		Units: mg/L		Analysis Date: 5/27/2014 04:51 PM			
Client ID:		Run ID: HG1_140527A		SeqNo: 2782019		Prep Date: 5/27/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.02032	0.0020	0.02	0.0002	101	75-125	0				
MSD				Sample ID: 14051021-02AMSD		Units: mg/L		Analysis Date: 5/27/2014 04:53 PM			
Client ID:		Run ID: HG1_140527A		SeqNo: 2782020		Prep Date: 5/27/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.02055	0.0020	0.02	0.0002	102	75-125	0.02032	1.13	20		

The following samples were analyzed in this batch:

14051143-01C	14051143-02C	14051143-03C
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58982** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK		Sample ID: MBLK-58982-58982			Units: mg/L		Analysis Date: 5/27/2014 12:19 AM		
Client ID:		Run ID: ICPMS2_140526A			SeqNo: 2780490		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Arsenic		ND	0.0050						
Barium		0.00007005	0.0050						J
Cadmium		ND	0.0020						
Chromium		ND	0.0050						
Copper		ND	0.0050						
Lead		ND	0.0050						
Selenium		ND	0.0050						
Silver		ND	0.0050						
Zinc		ND	0.010						

LCS		Sample ID: LCS-58982-58982			Units: mg/L		Analysis Date: 5/27/2014 12:25 AM		
Client ID:		Run ID: ICPMS2_140526A			SeqNo: 2780491		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Arsenic		0.09234	0.0050	0.1	0	92.3	80-120	0	
Barium		0.0923	0.0050	0.1	0	92.3	80-120	0	
Cadmium		0.09194	0.0020	0.1	0	91.9	80-120	0	
Chromium		0.09462	0.0050	0.1	0	94.6	80-120	0	
Copper		0.08042	0.0050	0.1	0	80.4	80-120	0	
Lead		0.09	0.0050	0.1	0	90	80-120	0	
Selenium		0.09214	0.0050	0.1	0	92.1	80-120	0	
Silver		0.09461	0.0050	0.1	0	94.6	80-120	0	
Zinc		0.09482	0.010	0.1	0	94.8	80-120	0	

MS		Sample ID: 14051021-02AMS			Units: mg/L		Analysis Date: 5/27/2014 01:12 AM		
Client ID:		Run ID: ICPMS2_140526A			SeqNo: 2780499		Prep Date: 5/23/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Arsenic		0.9918	0.050	1	0.0004316	99.1	75-125	0	
Barium		2.498	0.050	1	1.635	86.3	75-125	0	
Cadmium		0.9349	0.020	1	0.00248	93.2	75-125	0	
Chromium		0.9785	0.050	1	0.009278	96.9	75-125	0	
Lead		1.069	0.050	1	0.07095	99.8	75-125	0	
Selenium		0.9965	0.050	1	0.007187	98.9	75-125	0	
Silver		0.9123	0.050	1	-0.0001301	91.2	75-125	0	
Zinc		1.132	0.10	1	0.1897	94.2	75-125	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58982** Instrument ID **ICPMS2** Method: **SW6020A**

MS		Sample ID: 14051136-01DMS			Units: mg/L		Analysis Date: 5/27/2014 03:11 AM			
Client ID:		Run ID: ICPMS2_140526A			SeqNo: 2780518		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09726	0.0050	0.1	0.002178	95.1	75-125		0		
Barium	0.1724	0.0050	0.1	0.08071	91.7	75-125		0		
Cadmium	0.09137	0.0020	0.1	0.0000272	91.3	75-125		0		
Chromium	0.09746	0.0050	0.1	0.0002054	97.3	75-125		0		
Lead	0.0919	0.0050	0.1	0.0002435	91.7	75-125		0		
Selenium	0.0921	0.0050	0.1	0.0005846	91.5	75-125		0		
Silver	0.09145	0.0050	0.1	-4.51E-06	91.5	75-125		0		
Zinc	0.0949	0.010	0.1	0.00376	91.1	75-125		0		
MS		Sample ID: 14051021-02AMS			Units: mg/L		Analysis Date: 5/28/2014 06:08 PM			
Client ID:		Run ID: ICPMS2_140528A			SeqNo: 2784369		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	0.8582	0.050	1	0.01622	84.2	75-125		0		
MS		Sample ID: 14051136-01DMS			Units: mg/L		Analysis Date: 5/28/2014 06:43 PM			
Client ID:		Run ID: ICPMS2_140528A			SeqNo: 2784376		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	0.08626	0.0050	0.1	0.000817	85.4	75-125		0		
MSD		Sample ID: 14051021-02AMSD			Units: mg/L		Analysis Date: 5/27/2014 01:18 AM			
Client ID:		Run ID: ICPMS2_140526A			SeqNo: 2780500		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.9806	0.050	1	0.0004316	98	75-125	0.9918	1.14	20	
Barium	2.429	0.050	1	1.635	79.4	75-125	2.498	2.8	20	
Cadmium	0.9057	0.020	1	0.00248	90.3	75-125	0.9349	3.17	20	
Chromium	0.9733	0.050	1	0.009278	96.4	75-125	0.9785	0.533	20	
Lead	1.04	0.050	1	0.07095	96.9	75-125	1.069	2.75	20	
Selenium	0.98	0.050	1	0.007187	97.3	75-125	0.9965	1.67	20	
Silver	0.8996	0.050	1	-0.0001301	90	75-125	0.9123	1.4	20	
Zinc	1.109	0.10	1	0.1897	91.9	75-125	1.132	2.05	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58982** Instrument ID **ICPMS2** Method: **SW6020A**

MSD		Sample ID: 14051136-01DMSD			Units: mg/L		Analysis Date: 5/27/2014 05:07 PM			
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782088		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09812	0.0050	0.1	0.002178	95.9	75-125	0.09726	0.88	20	
Barium	0.1702	0.0050	0.1	0.08071	89.5	75-125	0.1724	1.28	20	
Cadmium	0.09344	0.0020	0.1	0	93.4	75-125	0.09137	2.24	20	
Chromium	0.09937	0.0050	0.1	0	99.4	75-125	0.09746	1.94	20	
Lead	0.09571	0.0050	0.1	0.0002435	95.5	75-125	0.0919	4.06	20	
Selenium	0.09443	0.0050	0.1	0	94.4	75-125	0.0921	2.5	20	
Silver	0.09479	0.0050	0.1	0	94.8	75-125	0.09145	3.59	20	
Zinc	0.09818	0.010	0.1	0.00376	94.4	75-125	0.0949	3.4	20	

MSD		Sample ID: 14051021-02AMSD			Units: mg/L		Analysis Date: 5/28/2014 06:14 PM			
Client ID:		Run ID: ICPMS2_140528A			SeqNo: 2784370		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	0.8477	0.050	1	0.01622	83.1	75-125	0.8582	1.23	20	

MSD		Sample ID: 14051136-01DMSD			Units: mg/L		Analysis Date: 5/28/2014 06:49 PM			
Client ID:		Run ID: ICPMS2_140528A			SeqNo: 2784379		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	0.08506	0.0050	0.1	0.000817	84.2	75-125	0.08626	1.4	20	

The following samples were analyzed in this batch:

14051143-01C	14051143-02C
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **59035** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK		Sample ID: MBLK-59035-59035			Units: mg/L		Analysis Date: 5/28/2014 02:13 AM			
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782508		Prep Date: 5/27/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Arsenic		ND	0.0050							
Barium		ND	0.0050							
Cadmium		ND	0.0020							
Chromium		ND	0.0050							
Lead		ND	0.0050							
Selenium		ND	0.0050							
Silver		ND	0.0050							
Zinc		ND	0.010							

MBLK		Sample ID: MBLK-59035-59035			Units: mg/L		Analysis Date: 5/28/2014 12:28 PM			
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2783395		Prep Date: 5/27/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Copper		ND	0.0050							

LCS		Sample ID: LCS-59035-59035			Units: mg/L		Analysis Date: 5/28/2014 02:19 AM			
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2782509		Prep Date: 5/27/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Arsenic		0.09203	0.0050	0.1	0	92	80-120	0		
Barium		0.09037	0.0050	0.1	0	90.4	80-120	0		
Cadmium		0.09079	0.0020	0.1	0	90.8	80-120	0		
Chromium		0.09636	0.0050	0.1	0	96.4	80-120	0		
Lead		0.08788	0.0050	0.1	0	87.9	80-120	0		
Selenium		0.08938	0.0050	0.1	0	89.4	80-120	0		
Silver		0.09407	0.0050	0.1	0	94.1	80-120	0		
Zinc		0.09626	0.010	0.1	0	96.3	80-120	0		

LCS		Sample ID: LCS-59035-59035			Units: mg/L		Analysis Date: 5/28/2014 12:34 PM			
Client ID:		Run ID: ICPMS2_140527A			SeqNo: 2783397		Prep Date: 5/27/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Copper		0.09172	0.0050	0.1	0	91.7	80-120	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **59035** Instrument ID **ICPMS2** Method: **SW6020A**

MS	Sample ID: 1405998-08AMS				Units: mg/L		Analysis Date: 5/28/2014 03:38 AM			
Client ID:	Run ID: ICPMS2_140527A			SeqNo: 2782521		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.925	0.050	2	-0.003675	96.4	75-125		0		
Barium	1.881	0.050	2	0.04963	91.6	75-125		0		
Cadmium	1.792	0.020	2	0.0005008	89.6	75-125		0		
Chromium	1.874	0.050	2	0.002291	93.6	75-125		0		
Lead	2.01	0.050	2	0.005971	100	75-125		0		
Selenium	1.915	0.050	2	0.0008861	95.7	75-125		0		
Silver	1.789	0.050	2	-7.994E-05	89.5	75-125		0		
Zinc	4.144	0.10	2	1.25	145	75-125		0		S

MS	Sample ID: 1405998-08AMS				Units: mg/L		Analysis Date: 5/28/2014 12:40 PM			
Client ID:	Run ID: ICPMS2_140527A			SeqNo: 2783399		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	2.52	0.050	2	0	126	75-125		0		S

MSD	Sample ID: 1405998-08AMSD				Units: mg/L		Analysis Date: 5/28/2014 04:01 AM			
Client ID:	Run ID: ICPMS2_140527A			SeqNo: 2782525		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.897	0.050	2	-0.003675	95	75-125	1.925	1.47	20	
Barium	1.833	0.050	2	0.04963	89.2	75-125	1.881	2.58	20	
Cadmium	1.753	0.020	2	0.0005008	87.6	75-125	1.792	2.2	20	
Chromium	1.844	0.050	2	0.002291	92.1	75-125	1.874	1.61	20	
Lead	1.975	0.050	2	0.005971	98.5	75-125	2.01	1.76	20	
Selenium	1.865	0.050	2	0.0008861	93.2	75-125	1.915	2.65	20	
Silver	1.759	0.050	2	-7.994E-05	88	75-125	1.789	1.69	20	
Zinc	4.081	0.10	2	1.25	142	75-125	4.144	1.53	20	S

MSD	Sample ID: 1405998-08AMSD				Units: mg/L		Analysis Date: 5/28/2014 12:46 PM			
Client ID:	Run ID: ICPMS2_140527A			SeqNo: 2783400		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	2.493	0.050	2	0	125	75-125	2.52	1.08	20	

The following samples were analyzed in this batch:

14051143-
03C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58955** Instrument ID **SVMS8** Method: **SW8270**

MBLK	Sample ID: SBLKW1-58955-58955			Units: µg/L		Analysis Date: 5/27/2014 10:58 AM			
Client ID:	Run ID: SVMS8_140527A			SeqNo: 2781498		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	5.0							
1,2-Dichlorobenzene	ND	5.0							
1,3-Dichlorobenzene	ND	5.0							
1,4-Dichlorobenzene	ND	5.0							
2,4,5-Trichlorophenol	ND	5.0							
2,4,6-Trichlorophenol	ND	5.0							
2,4-Dichlorophenol	ND	10							
2,4-Dimethylphenol	ND	5.0							
2,4-Dinitrophenol	ND	5.0							
2,4-Dinitrotoluene	ND	5.0							
2,6-Dinitrotoluene	ND	5.0							
2-Chloronaphthalene	ND	5.0							
2-Chlorophenol	ND	5.0							
2-Methylnaphthalene	ND	5.0							
2-Methylphenol	ND	5.0							
2-Nitroaniline	ND	20							
2-Nitrophenol	ND	5.0							
3,3'-Dichlorobenzidine	ND	5.0							
3-Nitroaniline	ND	20							
4,6-Dinitro-2-methylphenol	ND	20							
4-Bromophenyl phenyl ether	ND	5.0							
4-Chloro-3-methylphenol	ND	5.0							
4-Chloroaniline	ND	20							
4-Chlorophenyl phenyl ether	ND	5.0							
4-Methylphenol	ND	5.0							
4-Nitroaniline	ND	20							
4-Nitrophenol	ND	20							
Acenaphthene	ND	5.0							
Acenaphthylene	ND	5.0							
Anthracene	ND	5.0							
Benzo(a)anthracene	ND	5.0							
Benzo(a)pyrene	ND	5.0							
Benzo(b)fluoranthene	ND	5.0							
Benzo(g,h,i)perylene	ND	5.0							
Benzo(k)fluoranthene	ND	5.0							
Bis(2-chloroethoxy)methane	ND	5.0							
Bis(2-chloroethyl)ether	ND	5.0							
Bis(2-chloroisopropyl)ether	ND	5.0							
Bis(2-ethylhexyl)phthalate	ND	5.0							
Butyl benzyl phthalate	ND	5.0							
Carbazole	ND	10							
Chrysene	ND	5.0							

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: 58955	Instrument ID SVMS8	Method: SW8270					
Dibenzo(a,h)anthracene	ND	5.0					
Dibenzofuran	ND	5.0					
Diethyl phthalate	ND	20					
Dimethyl phthalate	ND	20					
Di-n-butyl phthalate	ND	5.0					
Di-n-octyl phthalate	ND	5.0					
Fluoranthene	ND	5.0					
Fluorene	ND	5.0					
Hexachlorobenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Hexachlorocyclopentadiene	ND	20					
Hexachloroethane	ND	5.0					
Indeno(1,2,3-cd)pyrene	ND	5.0					
Isophorone	ND	5.0					
Naphthalene	ND	5.0					
Nitrobenzene	ND	5.0					
N-Nitrosodi-n-propylamine	ND	5.0					
N-Nitrosodiphenylamine	ND	5.0					
Pentachlorophenol	ND	20					
Phenanthere	ND	5.0					
Phenol	ND	5.0					
Pyrene	ND	5.0					
<i>Surr: 2,4,6-Tribromophenol</i>	32.51	0	50	0	65	38-115	0
<i>Surr: 2-Fluorobiphenyl</i>	30.34	0	50	0	60.7	32-100	0
<i>Surr: 2-Fluorophenol</i>	17.18	0	50	0	34.4	22-59	0
<i>Surr: 4-Terphenyl-d14</i>	38.63	0	50	0	77.3	23-112	0
<i>Surr: Nitrobenzene-d5</i>	33.38	0	50	0	66.8	31-93	0
<i>Surr: Phenol-d6</i>	10.84	0	50	0	21.7	13-36	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58955** Instrument ID **SVMS8** Method: **SW8270**

LCS	Sample ID: SLCSW1-58955-58955			Units: µg/L		Analysis Date: 5/27/2014 11:19 AM			
Client ID:	Run ID: SVMS8_140527A			SeqNo: 2781499		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit	Qual
1,2,4-Trichlorobenzene	12.86	5.0	20	0	64.3	35-105	0	0	
1,2-Dichlorobenzene	13.86	5.0	20	0	69.3	35-100	0	0	
1,3-Dichlorobenzene	13.47	5.0	20	0	67.4	30-100	0	0	
1,4-Dichlorobenzene	13.37	5.0	20	0	66.8	30-100	0	0	
2,4,5-Trichlorophenol	14.53	5.0	20	0	72.6	50-110	0	0	
2,4,6-Trichlorophenol	13.76	5.0	20	0	68.8	50-115	0	0	
2,4-Dichlorophenol	14.31	10	20	0	71.6	50-105	0	0	
2,4-Dimethylphenol	11.16	5.0	20	0	55.8	30-110	0	0	
2,4-Dinitrophenol	14.9	5.0	20	0	74.5	15-140	0	0	
2,4-Dinitrotoluene	17.84	5.0	20	0	89.2	50-120	0	0	
2,6-Dinitrotoluene	16.93	5.0	20	0	84.6	50-115	0	0	
2-Chloronaphthalene	12.85	5.0	20	0	64.2	50-105	0	0	
2-Chlorophenol	12.55	5.0	20	0	62.8	35-105	0	0	
2-Methylnaphthalene	13.95	5.0	20	0	69.8	45-105	0	0	
2-Methylphenol	12.44	5.0	20	0	62.2	40-110	0	0	
2-Nitroaniline	15.91	20	20	0	79.6	50-115	0	0	J
2-Nitrophenol	14.41	5.0	20	0	72	40-115	0	0	
3-Nitroaniline	17.69	20	20	0	88.4	20-125	0	0	J
4,6-Dinitro-2-methylphenol	15.93	20	20	0	79.6	40-130	0	0	J
4-Bromophenyl phenyl ether	13.92	5.0	20	0	69.6	50-115	0	0	
4-Chloro-3-methylphenol	15.27	5.0	20	0	76.4	45-110	0	0	
4-Chloroaniline	15.48	20	20	0	77.4	15-110	0	0	J
4-Chlorophenyl phenyl ether	15.13	5.0	20	0	75.6	50-110	0	0	
4-Methylphenol	11.57	5.0	20	0	57.8	30-110	0	0	
4-Nitroaniline	20.66	20	20	0	103	35-150	0	0	
4-Nitrophenol	5.5	20	20	0	27.5	1-58	0	0	J
Acenaphthene	14.14	5.0	20	0	70.7	45-110	0	0	
Acenaphthylene	14.01	5.0	20	0	70	50-105	0	0	
Anthracene	15.71	5.0	20	0	78.6	55-110	0	0	
Benzo(a)anthracene	16.03	5.0	20	0	80.2	55-110	0	0	
Benzo(a)pyrene	16.89	5.0	20	0	84.4	55-110	0	0	
Benzo(b)fluoranthene	16.09	5.0	20	0	80.4	45-120	0	0	
Benzo(g,h,i)perylene	15.98	5.0	20	0	79.9	40-125	0	0	
Benzo(k)fluoranthene	16.31	5.0	20	0	81.6	45-125	0	0	
Bis(2-chloroethoxy)methane	14.63	5.0	20	0	73.2	45-105	0	0	
Bis(2-chloroethyl)ether	16.22	5.0	20	0	81.1	35-110	0	0	
Bis(2-chloroisopropyl)ether	16.62	5.0	20	0	83.1	25-130	0	0	
Bis(2-ethylhexyl)phthalate	15.48	5.0	20	0	77.4	40-125	0	0	
Butyl benzyl phthalate	14.21	5.0	20	0	71	45-115	0	0	
Carbazole	17.89	10	20	0	89.4	50-150	0	0	
Chrysene	15.89	5.0	20	0	79.4	55-110	0	0	
Dibenzo(a,h)anthracene	16.36	5.0	20	0	81.8	40-125	0	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: 58955	Instrument ID SVMS8	Method: SW8270					
Dibenzofuran	15.11	5.0	20	0	75.6	55-105	0
Diethyl phthalate	16.74	20	20	0	83.7	40-120	0
Dimethyl phthalate	15.68	20	20	0	78.4	25-125	0
Di-n-butyl phthalate	18.42	5.0	20	0	92.1	55-115	0
Di-n-octyl phthalate	15.32	5.0	20	0	76.6	35-135	0
Fluoranthene	18.97	5.0	20	0	94.8	55-115	0
Fluorene	15.07	5.0	20	0	75.4	50-110	0
Hexachlorobenzene	15.01	5.0	20	0	75	50-110	0
Hexachlorobutadiene	12.23	5.0	20	0	61.2	25-105	0
Hexachlorocyclopentadiene	8.86	20	20	0	44.3	25-105	0
Hexachloroethane	13.64	5.0	20	0	68.2	30-95	0
Indeno(1,2,3-cd)pyrene	16.57	5.0	20	0	82.8	45-125	0
Isophorone	15.81	5.0	20	0	79	50-110	0
Naphthalene	12.92	5.0	20	0	64.6	40-100	0
Nitrobenzene	13.72	5.0	20	0	68.6	45-110	0
N-Nitrosodi-n-propylamine	17.26	5.0	20	0	86.3	35-130	0
N-Nitrosodiphenylamine	14.33	5.0	20	0	71.6	50-110	0
Pentachlorophenol	14.01	20	20	0	70	40-115	0
Phenanthren	15.76	5.0	20	0	78.8	50-115	0
Phenol	5.49	5.0	20	0	27.4	12-43	0
Pyrene	13.52	5.0	20	0	67.6	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	35.76	0	50	0	71.5	38-115	0
<i>Surr: 2-Fluorobiphenyl</i>	30.51	0	50	0	61	32-100	0
<i>Surr: 2-Fluorophenol</i>	18.82	0	50	0	37.6	22-59	0
<i>Surr: 4-Terphenyl-d14</i>	38.92	0	50	0	77.8	23-112	0
<i>Surr: Nitrobenzene-d5</i>	37.43	0	50	0	74.9	31-93	0
<i>Surr: Phenol-d6</i>	13.57	0	50	0	27.1	13-36	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58955** Instrument ID **SVMS8** Method: **SW8270**

MS	Sample ID: 14051118-07B MS			Units: µg/L		Analysis Date: 5/27/2014 01:30 PM		
Client ID:	Run ID: SVMS8_140527A			SeqNo: 2781500		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
1,2,4-Trichlorobenzene	126.7	50	200	0	63.4	35-105	0	
1,2-Dichlorobenzene	136.6	50	200	0	68.3	35-100	0	
1,3-Dichlorobenzene	131.1	50	200	0	65.6	30-100	0	
1,4-Dichlorobenzene	133.8	50	200	0	66.9	30-100	0	
2,4,5-Trichlorophenol	150.9	50	200	0	75.4	50-110	0	
2,4,6-Trichlorophenol	144.5	50	200	0	72.2	50-115	0	
2,4-Dichlorophenol	140.5	100	200	0	70.2	50-105	0	
2,4-Dimethylphenol	110	50	200	0	55	30-110	0	
2,4-Dinitrophenol	164	50	200	0	82	15-140	0	
2,4-Dinitrotoluene	181.7	50	200	0	90.8	50-120	0	
2,6-Dinitrotoluene	173	50	200	0	86.5	50-115	0	
2-Chloronaphthalene	130.3	50	200	0	65.2	50-105	0	
2-Chlorophenol	131	50	200	0	65.5	35-105	0	
2-Methylnaphthalene	138	50	200	0	69	45-105	0	
2-Methylphenol	124	50	200	0	62	40-110	0	
2-Nitroaniline	166.3	200	200	0	83.2	50-115	0	J
2-Nitrophenol	141.5	50	200	0	70.8	40-115	0	
3-Nitroaniline	187.1	200	200	0	93.6	20-125	0	J
4,6-Dinitro-2-methylphenol	162.4	200	200	0	81.2	40-130	0	J
4-Bromophenyl phenyl ether	143	50	200	0	71.5	50-115	0	
4-Chloro-3-methylphenol	150.1	50	200	0	75	45-110	0	
4-Chloroaniline	155.7	200	200	0	77.8	15-110	0	J
4-Chlorophenyl phenyl ether	151.3	50	200	0	75.6	50-110	0	
4-Methylphenol	114	50	200	0	57	30-110	0	
4-Nitroaniline	214.5	200	200	0	107	35-150	0	
4-Nitrophenol	56.6	200	200	0	28.3	1-58	0	J
Acenaphthene	142.6	50	200	0	71.3	45-110	0	
Acenaphthylene	138	50	200	0	69	50-105	0	
Anthracene	160.1	50	200	0	80	55-110	0	
Benzo(a)anthracene	160.4	50	200	0	80.2	55-110	0	
Benzo(a)pyrene	169.7	50	200	0	84.8	55-110	0	
Benzo(b)fluoranthene	169.1	50	200	0	84.6	45-120	0	
Benzo(g,h,i)perylene	139.9	50	200	0	70	40-125	0	
Benzo(k)fluoranthene	171.8	50	200	0	85.9	45-125	0	
Bis(2-chloroethoxy)methane	142.8	50	200	0	71.4	45-105	0	
Bis(2-chloroethyl)ether	159	50	200	0	79.5	35-110	0	
Bis(2-chloroisopropyl)ether	163.5	50	200	0	81.8	25-130	0	
Bis(2-ethylhexyl)phthalate	156.4	50	200	0	78.2	40-125	0	
Butyl benzyl phthalate	146.9	50	200	0	73.4	45-115	0	
Carbazole	182.3	100	200	0	91.2	50-150	0	
Chrysene	161.1	50	200	0	80.6	55-110	0	
Dibenzo(a,h)anthracene	142.5	50	200	0	71.2	40-125	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: 58955	Instrument ID SVMS8	Method: SW8270					
Dibenzofuran	151.2	50	200	0	75.6	55-105	0
Diethyl phthalate	166.2	200	200	0	83.1	40-120	0
Dimethyl phthalate	157.6	200	200	0	78.8	25-125	0
Di-n-butyl phthalate	183.2	50	200	0	91.6	55-115	0
Di-n-octyl phthalate	160.6	50	200	0	80.3	35-135	0
Fluoranthene	186.6	50	200	0	93.3	55-115	0
Fluorene	150.4	50	200	0	75.2	50-110	0
Hexachlorobenzene	151.9	50	200	0	76	50-110	0
Hexachlorobutadiene	124	50	200	0	62	25-105	0
Hexachlorocyclopentadiene	104.7	200	200	0	52.4	25-105	0
Hexachloroethane	134.1	50	200	0	67	30-95	0
Indeno(1,2,3-cd)pyrene	145.8	50	200	0	72.9	45-125	0
Isophorone	152.8	50	200	0	76.4	50-110	0
Naphthalene	127.7	50	200	0	63.8	40-100	0
Nitrobenzene	139.9	50	200	0	70	45-110	0
N-Nitrosodi-n-propylamine	164.3	50	200	0	82.2	35-130	0
N-Nitrosodiphenylamine	148.1	50	200	0	74	50-110	0
Pentachlorophenol	156	200	200	0	78	40-115	0
Phenanthrene	160	50	200	0	80	50-115	0
Phenol	50.1	50	200	0	25	12-43	0
Pyrene	142.4	50	200	0	71.2	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	372.4	0	500	0	74.5	38-115	0
<i>Surr: 2-Fluorobiphenyl</i>	305.4	0	500	0	61.1	32-100	0
<i>Surr: 2-Fluorophenol</i>	184.9	0	500	0	37	22-59	0
<i>Surr: 4-Terphenyl-d14</i>	403.8	0	500	0	80.8	23-112	0
<i>Surr: Nitrobenzene-d5</i>	362.6	0	500	0	72.5	31-93	0
<i>Surr: Phenol-d6</i>	119.4	0	500	0	23.9	13-36	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **58955** Instrument ID **SVMS8** Method: **SW8270**

MSD	Sample ID: 14051118-07B MSD			Units: µg/L			Analysis Date: 5/27/2014 01:51 PM		
	Client ID:	Run ID:	SPK Ref Value	SeqNo:	Prep Date:	DF:			
Analyte	Result	PQL	SPK Val	%REC	Control Limit				
1,2,4-Trichlorobenzene	130.2	50	200	0	65.1	35-105	126.7	2.72	30
1,2-Dichlorobenzene	139	50	200	0	69.5	35-100	136.6	1.74	30
1,3-Dichlorobenzene	132	50	200	0	66	30-100	131.1	0.684	30
1,4-Dichlorobenzene	132.6	50	200	0	66.3	30-100	133.8	0.901	30
2,4,5-Trichlorophenol	149	50	200	0	74.5	50-110	150.9	1.27	30
2,4,6-Trichlorophenol	140.7	50	200	0	70.4	50-115	144.5	2.66	30
2,4-Dichlorophenol	140.6	100	200	0	70.3	50-105	140.5	0.0711	30
2,4-Dimethylphenol	107.9	50	200	0	54	30-110	110	1.93	30
2,4-Dinitrophenol	180.2	50	200	0	90.1	15-140	164	9.41	30
2,4-Dinitrotoluene	188.1	50	200	0	94	50-120	181.7	3.46	30
2,6-Dinitrotoluene	173.5	50	200	0	86.8	50-115	173	0.289	30
2-Chloronaphthalene	132.1	50	200	0	66	50-105	130.3	1.37	30
2-Chlorophenol	127	50	200	0	63.5	35-105	131	3.1	30
2-Methylnaphthalene	143.1	50	200	0	71.6	45-105	138	3.63	30
2-Methylphenol	122.8	50	200	0	61.4	40-110	124	0.972	30
2-Nitroaniline	171.1	200	200	0	85.6	50-115	166.3	0	30
2-Nitrophenol	145	50	200	0	72.5	40-115	141.5	2.44	30
3-Nitroaniline	187.4	200	200	0	93.7	20-125	187.1	0	30
4,6-Dinitro-2-methylphenol	165.4	200	200	0	82.7	40-130	162.4	0	30
4-Bromophenyl phenyl ether	142.3	50	200	0	71.2	50-115	143	0.491	30
4-Chloro-3-methylphenol	156	50	200	0	78	45-110	150.1	3.85	30
4-Chloroaniline	157.1	200	200	0	78.6	15-110	155.7	0	30
4-Chlorophenyl phenyl ether	154	50	200	0	77	50-110	151.3	1.77	30
4-Methylphenol	116.9	50	200	0	58.4	30-110	114	2.51	30
4-Nitroaniline	213.8	200	200	0	107	35-150	214.5	0.327	30
4-Nitrophenol	63.8	200	200	0	31.9	1-58	56.6	0	0
Acenaphthene	146.6	50	200	0	73.3	45-110	142.6	2.77	30
Acenaphthylene	142.1	50	200	0	71	50-105	138	2.93	30
Anthracene	157.8	50	200	0	78.9	55-110	160.1	1.45	30
Benzo(a)anthracene	156.9	50	200	0	78.4	55-110	160.4	2.21	30
Benzo(a)pyrene	166.7	50	200	0	83.4	55-110	169.7	1.78	30
Benzo(b)fluoranthene	159.9	50	200	0	80	45-120	169.1	5.59	30
Benzo(g,h,i)perylene	140	50	200	0	70	40-125	139.9	0.0715	30
Benzo(k)fluoranthene	165.1	50	200	0	82.6	45-125	171.8	3.98	30
Bis(2-chloroethoxy)methane	145.3	50	200	0	72.6	45-105	142.8	1.74	30
Bis(2-chloroethyl)ether	157.5	50	200	0	78.8	35-110	159	0.948	30
Bis(2-chloroisopropyl)ether	166.1	50	200	0	83	25-130	163.5	1.58	30
Bis(2-ethylhexyl)phthalate	153	50	200	0	76.5	40-125	156.4	2.2	30
Butyl benzyl phthalate	142.6	50	200	0	71.3	45-115	146.9	2.97	30
Carbazole	181.6	100	200	0	90.8	50-150	182.3	0.385	30
Chrysene	156.5	50	200	0	78.2	55-110	161.1	2.9	30
Dibenzo(a,h)anthracene	146.4	50	200	0	73.2	40-125	142.5	2.7	30

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: 58955	Instrument ID SVMS8	Method: SW8270							
Dibenzofuran	154.5	50	200	0	77.2	55-105	151.2	2.16	30
Diethyl phthalate	169.5	200	200	0	84.8	40-120	166.2	0	30 J
Dimethyl phthalate	163.3	200	200	0	81.6	25-125	157.6	0	30
Di-n-butyl phthalate	183.9	50	200	0	92	55-115	183.2	0.381	30
Di-n-octyl phthalate	151	50	200	0	75.5	35-135	160.6	6.16	30
Fluoranthene	188	50	200	0	94	55-115	186.6	0.747	30
Fluorene	153.6	50	200	0	76.8	50-110	150.4	2.11	30
Hexachlorobenzene	147.9	50	200	0	74	50-110	151.9	2.67	30
Hexachlorobutadiene	123.9	50	200	0	62	25-105	124	0.0807	30
Hexachlorocyclopentadiene	97.7	200	200	0	48.8	25-105	104.7	0	30 J
Hexachloroethane	134.7	50	200	0	67.4	30-95	134.1	0.446	30
Indeno(1,2,3-cd)pyrene	148.4	50	200	0	74.2	45-125	145.8	1.77	30
Isophorone	155.3	50	200	0	77.6	50-110	152.8	1.62	30
Naphthalene	128.9	50	200	0	64.4	40-100	127.7	0.935	30
Nitrobenzene	139.9	50	200	0	70	45-110	139.9	0	30
N-Nitrosodi-n-propylamine	168.3	50	200	0	84.2	35-130	164.3	2.41	30
N-Nitrosodiphenylamine	144.7	50	200	0	72.4	50-110	148.1	2.32	30
Pentachlorophenol	159.1	200	200	0	79.6	40-115	156	0	30 J
Phenanthren	158.2	50	200	0	79.1	50-115	160	1.13	30
Phenol	53.4	50	200	0	26.7	12-43	50.1	6.38	30
Pyrene	135.4	50	200	0	67.7	50-130	142.4	5.04	30
Surr: 2,4,6-Tribromophenol	371.4	0	500	0	74.3	38-115	372.4	0.269	40
Surr: 2-Fluorobiphenyl	307.6	0	500	0	61.5	32-100	305.4	0.718	40
Surr: 2-Fluorophenol	186.4	0	500	0	37.3	22-59	184.9	0.808	40
Surr: 4-Terphenyl-d14	374.9	0	500	0	75	23-112	403.8	7.42	40
Surr: Nitrobenzene-d5	354.5	0	500	0	70.9	31-93	362.6	2.26	40
Surr: Phenol-d6	129	0	500	0	25.8	13-36	119.4	7.73	40

The following samples were analyzed in this batch:

14051143-01B	14051143-02B	14051143-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **R141494** Instrument ID **VMS8** Method: **SW8260**

MBLK	Sample ID: VBLKW1-140528-R141494			Units: µg/L		Analysis Date: 5/28/2014 12:30 PM			
Client ID:	Run ID: VMS8_140528A			SeqNo: 2785004		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0							
1,1,1-Trichloroethane	ND	1.0							
1,1,2,2-Tetrachloroethane	ND	1.0							
1,1,2-Trichloroethane	ND	1.0							
1,1,2-Trichlorotrifluoroethane	ND	1.0							
1,1-Dichloroethane	ND	1.0							
1,1-Dichloroethene	ND	1.0							
1,2,3-Trichloropropane	ND	1.0							
1,2,4-Trichlorobenzene	ND	1.0							
1,2,4-Trimethylbenzene	ND	1.0							
1,2-Dibromo-3-chloropropane	ND	1.0							
1,2-Dibromoethane	ND	1.0							
1,2-Dichlorobenzene	ND	1.0							
1,2-Dichloroethane	ND	1.0							
1,2-Dichloropropane	ND	1.0							
1,3,5-Trimethylbenzene	ND	1.0							
1,3-Dichlorobenzene	ND	1.0							
1,4-Dichlorobenzene	ND	1.0							
2-Butanone	ND	5.0							
2-Hexanone	ND	5.0							
2-Methylnaphthalene	ND	5.0							
4-Methyl-2-pentanone	ND	1.0							
Acetone	ND	10							
Acrylonitrile	ND	1.0							
Benzene	ND	1.0							
Bromochloromethane	ND	1.0							
Bromodichloromethane	ND	1.0							
Bromoform	ND	1.0							
Bromomethane	ND	1.0							
Carbon disulfide	ND	1.0							
Carbon tetrachloride	ND	1.0							
Chlorobenzene	ND	1.0							
Chloroethane	ND	1.0							
Chloroform	ND	1.0							
Chloromethane	ND	1.0							
cis-1,2-Dichloroethene	ND	1.0							
cis-1,3-Dichloropropene	ND	1.0							
Dibromochloromethane	ND	1.0							
Dibromomethane	ND	1.0							
Dichlorodifluoromethane	ND	1.0							
Diethyl ether	ND	1.0							
Ethylbenzene	ND	1.0							

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: R141494	Instrument ID VMS8	Method: SW8260					
Hexachloroethane	ND	1.0					
Isopropylbenzene	ND	1.0					
m,p-Xylene	ND	2.0					
Methyl iodide	ND	1.0					
Methyl tert-butyl ether	ND	1.0					
Methylene chloride	ND	5.0					
Naphthalene	1.04	5.0					J
n-Propylbenzene	ND	1.0					
o-Xylene	ND	1.0					
Styrene	ND	1.0					
Tetrachloroethene	ND	1.0					
Toluene	ND	1.0					
trans-1,2-Dichloroethene	ND	1.0					
trans-1,3-Dichloropropene	ND	1.0					
trans-1,4-Dichloro-2-butene	ND	2.0					
Trichloroethene	ND	1.0					
Trichlorofluoromethane	ND	1.0					
Vinyl acetate	ND	1.0					
Vinyl chloride	ND	1.0					
Xylenes, Total	ND	3.0					
<i>Surr: 1,2-Dichloroethane-d4</i>	19.69	0	20	0	98.4	75-120	0
<i>Surr: 4-Bromofluorobenzene</i>	19.89	0	20	0	99.4	80-110	0
<i>Surr: Dibromofluoromethane</i>	19.78	0	20	0	98.9	85-115	0
<i>Surr: Toluene-d8</i>	20.27	0	20	0	101	85-110	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **R141494** Instrument ID **VMS8** Method: **SW8260**

LCS	Sample ID: VLCSW1-140528-R141494			Units: µg/L		Analysis Date: 5/28/2014 10:12 AM		
Client ID:	Run ID: VMS8_140528A			SeqNo: 2785000		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
1,1,1,2-Tetrachloroethane	24.18	1.0	20	0	121	80-130	0	0
1,1,1-Trichloroethane	25.21	1.0	20	0	126	75-130	0	0
1,1,2,2-Tetrachloroethane	21.29	1.0	20	0	106	75-130	0	0
1,1,2-Trichloroethane	23.33	1.0	20	0	117	75-125	0	0
1,1-Dichloroethane	23.86	1.0	20	0	119	75-133	0	0
1,1-Dichloroethene	26.85	1.0	20	0	134	70-145	0	0
1,2,3-Trichloropropane	19.29	1.0	20	0	96.4	75-125	0	0
1,2,4-Trichlorobenzene	26.43	1.0	20	0	132	70-135	0	0
1,2,4-Trimethylbenzene	23.29	1.0	20	0	116	75-130	0	0
1,2-Dibromo-3-chloropropane	19.33	1.0	20	0	96.6	60-130	0	0
1,2-Dibromoethane	24.24	1.0	20	0	121	80-150	0	0
1,2-Dichlorobenzene	23.89	1.0	20	0	119	70-130	0	0
1,2-Dichloroethane	22.86	1.0	20	0	114	78-125	0	0
1,2-Dichloropropane	23.37	1.0	20	0	117	75-125	0	0
1,3,5-Trimethylbenzene	25.19	1.0	20	0	126	75-130	0	0
1,3-Dichlorobenzene	25.4	1.0	20	0	127	75-130	0	0
1,4-Dichlorobenzene	23.62	1.0	20	0	118	75-130	0	0
2-Butanone	19.22	5.0	20	0	96.1	55-150	0	0
2-Hexanone	19.13	5.0	20	0	95.6	60-135	0	0
4-Methyl-2-pentanone	25.45	1.0	20	0	127	77-178	0	0
Acetone	18.5	10	20	0	92.5	60-160	0	0
Acrylonitrile	22.15	1.0	20	0	111	60-140	0	0
Benzene	22.01	1.0	20	0	110	85-125	0	0
Bromochloromethane	23.7	1.0	20	0	118	75-130	0	0
Bromodichloromethane	22.89	1.0	20	0	114	75-125	0	0
Bromoform	20.76	1.0	20	0	104	60-125	0	0
Bromomethane	31.57	1.0	20	0	158	30-185	0	0
Carbon disulfide	27.59	1.0	20	0	138	60-165	0	0
Carbon tetrachloride	21.75	1.0	20	0	109	65-140	0	0
Chlorobenzene	22.89	1.0	20	0	114	80-120	0	0
Chloroethane	20.83	1.0	20	0	104	50-140	0	0
Chloroform	22.46	1.0	20	0	112	80-130	0	0
Chloromethane	21.3	1.0	20	0	106	50-130	0	0
cis-1,2-Dichloroethene	24.56	1.0	20	0	123	75-134	0	0
cis-1,3-Dichloropropene	25.34	1.0	20	0	127	70-130	0	0
Dibromochloromethane	21.6	1.0	20	0	108	60-115	0	0
Dibromomethane	22.44	1.0	20	0	112	85-125	0	0
Dichlorodifluoromethane	18.25	1.0	20	0	91.2	20-120	0	0
Ethylbenzene	23.94	1.0	20	0	120	85-125	0	0
Hexachloroethane	21.94	1.0	20	0	110	70-135	0	0
Isopropylbenzene	24.68	1.0	20	0	123	80-127	0	0
m,p-Xylene	47.49	2.0	40	0	119	75-130	0	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: R141494	Instrument ID VMS8	Method: SW8260					
Methyl iodide	35.07	1.0	20	0	175	60-160	0
Methyl tert-butyl ether	21.71	1.0	20	0	109	80-130	0
Methylene chloride	23.13	5.0	20	0	116	75-140	0
Naphthalene	26.2	5.0	20	0	131	55-160	0
n-Propylbenzene	24.14	1.0	20	0	121	78-120	0
o-Xylene	23.26	1.0	20	0	116	80-125	0
Styrene	24.07	1.0	20	0	120	85-125	0
Tetrachloroethene	26.95	1.0	20	0	135	77-138	0
Toluene	22.91	1.0	20	0	115	85-125	0
trans-1,2-Dichloroethene	26.28	1.0	20	0	131	80-140	0
trans-1,3-Dichloropropene	24.08	1.0	20	0	120	81-123	0
trans-1,4-Dichloro-2-butene	19.6	2.0	20	0	98	46-118	0
Trichloroethene	24.23	1.0	20	0	121	84-130	0
Trichlorofluoromethane	24.32	1.0	20	0	122	60-140	0
Vinyl chloride	23.86	1.0	20	0	119	50-136	0
Xylenes, Total	70.75	3.0	60	0	118	80-126	0
Surr: 1,2-Dichloroethane-d4	19.84	0	20	0	99.2	75-120	0
Surr: 4-Bromofluorobenzene	19.7	0	20	0	98.5	80-110	0
Surr: Dibromofluoromethane	20.12	0	20	0	101	85-115	0
Surr: Toluene-d8	19.95	0	20	0	99.8	85-110	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 19 of 23

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **R141494** Instrument ID **VMS8** Method: **SW8260**

MS	Sample ID: 14051143-02A MS			Units: µg/L		Analysis Date: 5/28/2014 07:56 PM			
Client ID: SB-2	Run ID: VMS8_140528A			SeqNo: 2785019		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.38	1.0	20	0	107	80-130	0	0	
1,1,1-Trichloroethane	24.28	1.0	20	0	121	75-130	0	0	
1,1,2,2-Tetrachloroethane	19.52	1.0	20	0	97.6	75-130	0	0	
1,1,2-Trichloroethane	21.53	1.0	20	0	108	75-125	0	0	
1,1-Dichloroethane	22.76	1.0	20	0	114	75-133	0	0	
1,1-Dichloroethene	26.1	1.0	20	0	130	70-145	0	0	
1,2,3-Trichloropropane	17.89	1.0	20	0	89.4	75-125	0	0	
1,2,4-Trichlorobenzene	18.13	1.0	20	0	90.6	70-135	0	0	
1,2,4-Trimethylbenzene	19.37	1.0	20	0	96.8	75-130	0	0	
1,2-Dibromo-3-chloropropane	16.87	1.0	20	0	84.4	60-130	0	0	
1,2-Dibromoethane	21.97	1.0	20	0	110	80-150	0	0	
1,2-Dichlorobenzene	20.24	1.0	20	0	101	70-130	0	0	
1,2-Dichloroethane	21.27	1.0	20	0	106	78-125	0	0	
1,2-Dichloropropane	21.24	1.0	20	0	106	75-125	0	0	
1,3,5-Trimethylbenzene	21.27	1.0	20	0	106	75-130	0	0	
1,3-Dichlorobenzene	21.55	1.0	20	0	108	75-130	0	0	
1,4-Dichlorobenzene	19.98	1.0	20	0	99.9	75-130	0	0	
2-Butanone	20.38	5.0	20	0	102	55-150	0	0	
2-Hexanone	17.98	5.0	20	0	89.9	60-135	0	0	
4-Methyl-2-pentanone	24.32	1.0	20	0	122	77-178	0	0	
Acetone	16.98	10	20	0	84.9	60-160	0	0	
Acrylonitrile	20.42	1.0	20	0	102	60-140	0	0	
Benzene	20.83	1.0	20	0	104	85-125	0	0	
Bromochloromethane	22.69	1.0	20	0	113	75-130	0	0	
Bromodichloromethane	21.35	1.0	20	0	107	75-125	0	0	
Bromoform	18.95	1.0	20	0	94.8	60-125	0	0	
Bromomethane	29.97	1.0	20	0	150	30-185	0	0	
Carbon disulfide	26.99	1.0	20	0	135	60-165	0	0	
Carbon tetrachloride	21.06	1.0	20	0	105	65-140	0	0	
Chlorobenzene	21.15	1.0	20	0	106	80-120	0	0	
Chloroethane	19.57	1.0	20	0	97.8	50-140	0	0	
Chloroform	21.42	1.0	20	0	107	80-130	0	0	
Chloromethane	20.25	1.0	20	0	101	50-130	0	0	
cis-1,2-Dichloroethene	23.64	1.0	20	0	118	75-134	0	0	
cis-1,3-Dichloropropene	23.13	1.0	20	0	116	70-130	0	0	
Dibromochloromethane	19.21	1.0	20	0	96	60-115	0	0	
Dibromomethane	21.08	1.0	20	0	105	85-125	0	0	
Dichlorodifluoromethane	17.5	1.0	20	0	87.5	20-120	0	0	
Ethylbenzene	21.64	1.0	20	0	108	85-125	0	0	
Hexachloroethane	17.57	1.0	20	0	87.8	70-135	0	0	
Isopropylbenzene	21.69	1.0	20	0	108	80-127	0	0	
m,p-Xylene	42.31	2.0	40	0	106	75-130	0	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: R141494	Instrument ID VMS8	Method: SW8260					
Methyl iodide	31.12	1.0	20	0	156	60-160	0
Methyl tert-butyl ether	20.36	1.0	20	0	102	80-130	0
Methylene chloride	22.25	5.0	20	0	111	75-140	0
Naphthalene	16.76	5.0	20	1.61	75.8	55-160	0
n-Propylbenzene	20.62	1.0	20	0	103	78-120	0
o-Xylene	20.94	1.0	20	0	105	80-125	0
Styrene	21.42	1.0	20	0	107	85-125	0
Tetrachloroethene	26.56	1.0	20	0	133	77-138	0
Toluene	21.28	1.0	20	0	106	85-125	0
trans-1,2-Dichloroethene	25.38	1.0	20	0	127	80-140	0
trans-1,3-Dichloropropene	20.8	1.0	20	0	104	81-123	0
trans-1,4-Dichloro-2-butene	16.83	2.0	20	0	84.2	46-118	0
Trichloroethene	25.92	1.0	20	2.45	117	84-130	0
Trichlorofluoromethane	23.92	1.0	20	0	120	60-140	0
Vinyl chloride	23.68	1.0	20	0	118	50-136	0
Xylenes, Total	63.25	3.0	60	0	105	80-126	0
Surr: 1,2-Dichloroethane-d4	20.06	0	20	0	100	75-120	0
Surr: 4-Bromofluorobenzene	19.97	0	20	0	99.8	80-110	0
Surr: Dibromofluoromethane	19.67	0	20	0	98.4	85-115	0
Surr: Toluene-d8	19.58	0	20	0	97.9	85-110	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 21 of 23

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: **R141494** Instrument ID **VMS8** Method: **SW8260**

MSD	Sample ID: 14051143-02A MSD			Units: µg/L			Analysis Date: 5/28/2014 08:20 PM			
	Client ID: SB-2	Run ID: VMS8_140528A	SeqNo: 2785020	Prep Date:	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.18	1.0	20	0	106	80-130	21.38	0.94	30	
1,1,1-Trichloroethane	23.8	1.0	20	0	119	75-130	24.28	2	30	
1,1,2,2-Tetrachloroethane	19.68	1.0	20	0	98.4	75-130	19.52	0.816	30	
1,1,2-Trichloroethane	21.18	1.0	20	0	106	75-125	21.53	1.64	30	
1,1-Dichloroethane	22.52	1.0	20	0	113	75-133	22.76	1.06	30	
1,1-Dichloroethene	25.31	1.0	20	0	127	70-145	26.1	3.07	30	
1,2,3-Trichloropropane	18.6	1.0	20	0	93	75-125	17.89	3.89	30	
1,2,4-Trichlorobenzene	20.18	1.0	20	0	101	70-135	18.13	10.7	30	
1,2,4-Trimethylbenzene	19.91	1.0	20	0	99.6	75-130	19.37	2.75	30	
1,2-Dibromo-3-chloropropane	17.85	1.0	20	0	89.2	60-130	16.87	5.65	30	
1,2-Dibromoethane	21.91	1.0	20	0	110	80-150	21.97	0.273	30	
1,2-Dichlorobenzene	20.86	1.0	20	0	104	70-130	20.24	3.02	30	
1,2-Dichloroethane	20.75	1.0	20	0	104	78-125	21.27	2.48	30	
1,2-Dichloropropane	21.13	1.0	20	0	106	75-125	21.24	0.519	30	
1,3,5-Trimethylbenzene	21.66	1.0	20	0	108	75-130	21.27	1.82	30	
1,3-Dichlorobenzene	21.44	1.0	20	0	107	75-130	21.55	0.512	30	
1,4-Dichlorobenzene	20.26	1.0	20	0	101	75-130	19.98	1.39	30	
2-Butanone	19.14	5.0	20	0	95.7	55-150	20.38	6.28	30	
2-Hexanone	19.08	5.0	20	0	95.4	60-135	17.98	5.94	30	
4-Methyl-2-pentanone	24.35	1.0	20	0	122	77-178	24.32	0.123	30	
Acetone	17.75	10	20	0	88.8	60-160	16.98	4.43	30	
Acrylonitrile	20.94	1.0	20	0	105	60-140	20.42	2.51	30	
Benzene	20.49	1.0	20	0	102	85-125	20.83	1.65	30	
Bromochloromethane	21.33	1.0	20	0	107	75-130	22.69	6.18	30	
Bromodichloromethane	20.83	1.0	20	0	104	75-125	21.35	2.47	30	
Bromoform	18.62	1.0	20	0	93.1	60-125	18.95	1.76	30	
Bromomethane	20.71	1.0	20	0	104	30-185	29.97	36.5	30	R
Carbon disulfide	26.1	1.0	20	0	130	60-165	26.99	3.35	30	
Carbon tetrachloride	21.11	1.0	20	0	106	65-140	21.06	0.237	30	
Chlorobenzene	20.99	1.0	20	0	105	80-120	21.15	0.759	30	
Chloroethane	19.85	1.0	20	0	99.2	50-140	19.57	1.42	30	
Chloroform	20.77	1.0	20	0	104	80-130	21.42	3.08	30	
Chloromethane	19.5	1.0	20	0	97.5	50-130	20.25	3.77	30	
cis-1,2-Dichloroethene	23.23	1.0	20	0	116	75-134	23.64	1.75	30	
cis-1,3-Dichloropropene	22.47	1.0	20	0	112	70-130	23.13	2.89	30	
Dibromochloromethane	19.02	1.0	20	0	95.1	60-115	19.21	0.994	30	
Dibromomethane	21.03	1.0	20	0	105	85-125	21.08	0.237	30	
Dichlorodifluoromethane	17.07	1.0	20	0	85.4	20-120	17.5	2.49	30	
Ethylbenzene	21.73	1.0	20	0	109	85-125	21.64	0.415	30	
Hexachloroethane	17.71	1.0	20	0	88.6	70-135	17.57	0.794	30	
Isopropylbenzene	21.82	1.0	20	0	109	80-127	21.69	0.598	30	
m,p-Xylene	42.44	2.0	40	0	106	75-130	42.31	0.307	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless Environmental Services
Work Order: 14051143
Project: Y-Site - 5700L2-8-20

QC BATCH REPORT

Batch ID: R141494	Instrument ID VMS8	Method: SW8260								
Methyl iodide	33.68	1.0	20	0	168	60-160	31.12	7.9	30	S
Methyl tert-butyl ether	20.01	1.0	20	0	100	80-130	20.36	1.73	30	
Methylene chloride	21.5	5.0	20	0	108	75-140	22.25	3.43	30	
Naphthalene	19.93	5.0	20	1.61	91.6	55-160	16.76	17.3	30	
n-Propylbenzene	20.98	1.0	20	0	105	78-120	20.62	1.73	30	
o-Xylene	20.77	1.0	20	0	104	80-125	20.94	0.815	30	
Styrene	21.68	1.0	20	0	108	85-125	21.42	1.21	30	
Tetrachloroethene	26.73	1.0	20	0	134	77-138	26.56	0.638	30	
Toluene	20.87	1.0	20	0	104	85-125	21.28	1.95	30	
trans-1,2-Dichloroethene	24.38	1.0	20	0	122	80-140	25.38	4.02	30	
trans-1,3-Dichloropropene	20.65	1.0	20	0	103	81-123	20.8	0.724	30	
trans-1,4-Dichloro-2-butene	17.13	2.0	20	0	85.6	46-118	16.83	1.77	30	
Trichloroethene	25.37	1.0	20	2.45	115	84-130	25.92	2.14	30	
Trichlorofluoromethane	23.6	1.0	20	0	118	60-140	23.92	1.35	30	
Vinyl chloride	22.63	1.0	20	0	113	50-136	23.68	4.53	30	
Xylenes, Total	63.21	3.0	60	0	105	80-126	63.25	0.0633	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	19.83	0	20	0	99.2	75-120	20.06	1.15	30	
<i>Surr: 4-Bromofluorobenzene</i>	19.37	0	20	0	96.8	80-110	19.97	3.05	30	
<i>Surr: Dibromofluoromethane</i>	19.91	0	20	0	99.6	85-115	19.67	1.21	30	
<i>Surr: Toluene-d8</i>	19.63	0	20	0	98.2	85-110	19.58	0.255	30	

The following samples were analyzed in this batch:

14051143-01A	14051143-02A	14051143-03A
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Environmental

Cincinnati, OH
+1 513 733 5336Fort Collins, CO
+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 106278

Houston, TX
+1 281 530 5656Spring City, PA
+1 610 948 4903South Charleston, WV
+1 304 356 3168Middletown, PA
+1 717 944 5541Salt Lake City, UT
+1 801 266 7700York, PA
+1 717 505 5280

ALS Work Order #: 140511U3

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order	<u>5700LZ-8-20</u>	Project Name	<u>Y-SITE</u>	A	<u>VOCs 9260+</u>										
Work Order		Project Number	<u>5700LZ-8-20</u>	B	<u>SNOCs 8270</u>										
Company Name	AKT Peerless Environmental Services	Bill To Company	AKT Peerless	C	<u>MI 10 METALS</u>										
Send Report To		Invoice Attn	Accounts Payable	D	<u>PCBs</u>										
Address	1000 S Washington Suite 104	Address	214 Janes Avenue	E											
City/State/Zip	Lansing, MI 48933	City/State/Zip	Saginaw, MI 48607	F											
Phone	(517) 482-9227	Phone	(989) 754-9896	G											
Fax	(517) 482-9229	Fax		H											
e-Mail Address		e-Mail Address	<u>JK.limbeck@aktparless.com</u>	I											
J															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-1	<u>5/21/14</u>	<u>1102</u>	<u>W</u>	<u>1,2</u>	<u>7</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
2	SB-2	<u> </u>	<u>1112</u>	<u>L</u>	<u>1,2</u>	<u>7</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
3	SB-3	<u> </u>	<u>1120</u>	<u>L</u>	<u>1,2</u>	<u>7</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign

Josh Gekeler

Shipment Method

Required Turnaround Time: (Check Box)

 Std 10 WK Days 5 WK Days Other
 2 WK Days 24 Hour

Results Due Date:

Relinquished by:
Date:
5/21/14Time:
1630Received by (Laboratory):

Notes:

Relinquished by:
Date:
5/21/14Time:
1700Received by (Laboratory):
Cooler ID: Cooler Temp: 4.0 °C

QC Package: (Check One Box Below)

- Level II Std QC TRRP Check List
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SW846/CLP
 Other

Logged by (Laboratory):

DFS Date: 5/22/14 Time: 1345Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Group USA, Corp

Sample Receipt Checklist

Client Name: AKT PEERLESS - LANSING

Date/Time Received: 21-May-14 17:00

Work Order: 14051143

Received by: DS

Checklist completed by <u>Diane Sham</u> eSignature	22-May-14 Date	Reviewed by <u>Joseph Ribar</u> eSignature	27-May-14 Date
--	-------------------	---	-------------------

Matrices: Water

Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.0 c</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>5/22/2014 2:03:19 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



26-Jun-2014

Joseph Ribar
ALS Laboratory Group, Inc.
3352 128th Avenue
Holland, MI 49424

Tel: (616) 399-6070
Fax: (616) 399-6185

Re: 20-1406168

Work Order: **1406131**

Dear Joseph,

ALS Environmental received 2 samples on 05-Jun-2014 11:51 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 14.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Shawn Smythe

Electronically approved by: Rob Nieman

Shawn Smythe
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, Ohio 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental

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RIGHT SOLUTIONS RIGHT PARTNER

Client: ALS Laboratory Group, Inc.
Project: 20-1406168
Work Order: **1406131**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1406131-01	1406168-01A	Air		6/2/2014 15:30	6/5/2014 11:51	<input type="checkbox"/>
1406131-02	1406168-02A	Air		6/2/2014 13:40	6/5/2014 11:51	<input type="checkbox"/>

Client: ALS Laboratory Group, Inc.
Project: 20-1406168
Work Order: 1406131

Case Narrative

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 26-Jun-14

Client: ALS Laboratory Group, Inc.

Project: 20-1406168

Sample ID: 1406168-01A

Collection Date: 6/2/2014 03:30 PM

Work Order: 1406131

Lab ID: 1406131-01

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS						
1,1,1-Trichloroethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,1-Dichloroethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,1-Dichloroethene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,2,4-Trimethylbenzene	5.4		5.0	ppbv	10	6/9/2014 06:54 PM
1,2-Dibromoethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,2-Dichloroethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,2-Dichloropropane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,3-Butadiene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,3-Dichlorobenzene	140		5.0	ppbv	10	6/9/2014 06:54 PM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
1,4-Dioxane	ND		10	ppbv	10	6/9/2014 06:54 PM
2-Butanone	61		5.0	ppbv	10	6/9/2014 06:54 PM
2-Hexanone	ND		5.0	ppbv	10	6/9/2014 06:54 PM
4-Ethyltoluene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
4-Methyl-2-pentanone	8.2		5.0	ppbv	10	6/9/2014 06:54 PM
Acetone	58		10	ppbv	10	6/9/2014 06:54 PM
Benzene	15		5.0	ppbv	10	6/9/2014 06:54 PM
Benzyl chloride	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Bromodichloromethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Bromoform	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Bromomethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Carbon disulfide	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Carbon tetrachloride	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Chlorobenzene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Chloroethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Chloroform	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Chloromethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
cis-1,2-Dichloroethene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Cumene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Cyclohexane	9.4		5.0	ppbv	10	6/9/2014 06:54 PM
Dibromochloromethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Dichlorodifluoromethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Ethyl acetate	ND		5.0	ppbv	10	6/9/2014 06:54 PM

Note:

ALS Environmental**Date:** 26-Jun-14**Client:** ALS Laboratory Group, Inc.**Project:** 20-1406168**Work Order:** 1406131**Sample ID:** 1406168-01A**Lab ID:** 1406131-01**Collection Date:** 6/2/2014 03:30 PM**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	5.1		5.0	ppbv	10	6/9/2014 06:54 PM
Freon 113	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Freon 114	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Heptane	8.8		5.0	ppbv	10	6/9/2014 06:54 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Hexane	76		5.0	ppbv	10	6/9/2014 06:54 PM
m,p-Xylene	17		5.0	ppbv	10	6/9/2014 06:54 PM
Methylene chloride	ND		5.0	ppbv	10	6/9/2014 06:54 PM
MTBE	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Naphthalene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
o-Xylene	6.2		5.0	ppbv	10	6/9/2014 06:54 PM
Propene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Styrene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Tetrachloroethene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Tetrahydrofuran	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Toluene	38		5.0	ppbv	10	6/9/2014 06:54 PM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Trichloroethene	ND		2.0	ppbv	10	6/9/2014 06:54 PM
Trichlorofluoromethane	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Vinyl acetate	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Vinyl chloride	ND		5.0	ppbv	10	6/9/2014 06:54 PM
Surr: Bromofluorobenzene	104		60-140	%REC	10	6/9/2014 06:54 PM

Note:

ALS Environmental

Date: 26-Jun-14

Client: ALS Laboratory Group, Inc.

Project: 20-1406168

Sample ID: 1406168-02A

Collection Date: 6/2/2014 01:40 PM

Work Order: 1406131

Lab ID: 1406131-02

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS						
1,1,1-Trichloroethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,1-Dichloroethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,1-Dichloroethene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,2-Dibromoethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,2-Dichloroethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,2-Dichloropropane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,3-Butadiene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,3-Dichlorobenzene	110		5.0	ppbv	10	6/9/2014 07:34 PM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
1,4-Dioxane	ND		10	ppbv	10	6/9/2014 07:34 PM
2-Butanone	41		5.0	ppbv	10	6/9/2014 07:34 PM
2-Hexanone	ND		5.0	ppbv	10	6/9/2014 07:34 PM
4-Ethyltoluene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
4-Methyl-2-pentanone	5.8		5.0	ppbv	10	6/9/2014 07:34 PM
Acetone	28		10	ppbv	10	6/9/2014 07:34 PM
Benzene	23		5.0	ppbv	10	6/9/2014 07:34 PM
Benzyl chloride	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Bromodichloromethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Bromoform	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Bromomethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Carbon disulfide	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Carbon tetrachloride	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Chlorobenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Chloroethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Chloroform	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Chloromethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
cis-1,2-Dichloroethene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Cumene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Cyclohexane	14		5.0	ppbv	10	6/9/2014 07:34 PM
Dibromochloromethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Dichlorodifluoromethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Ethyl acetate	ND		5.0	ppbv	10	6/9/2014 07:34 PM

Note:

ALS Environmental**Date:** 26-Jun-14**Client:** ALS Laboratory Group, Inc.**Project:** 20-1406168**Work Order:** 1406131**Sample ID:** 1406168-02A**Lab ID:** 1406131-02**Collection Date:** 6/2/2014 01:40 PM**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Freon 113	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Freon 114	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Heptane	11		5.0	ppbv	10	6/9/2014 07:34 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Hexane	110		5.0	ppbv	10	6/9/2014 07:34 PM
m,p-Xylene	17		5.0	ppbv	10	6/9/2014 07:34 PM
Methylene chloride	ND		5.0	ppbv	10	6/9/2014 07:34 PM
MTBE	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Naphthalene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
o-Xylene	5.7		5.0	ppbv	10	6/9/2014 07:34 PM
Propene	160		5.0	ppbv	10	6/9/2014 07:34 PM
Styrene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Tetrachloroethene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Tetrahydrofuran	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Toluene	43		5.0	ppbv	10	6/9/2014 07:34 PM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Trichloroethene	ND		2.0	ppbv	10	6/9/2014 07:34 PM
Trichlorofluoromethane	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Vinyl acetate	ND		5.0	ppbv	10	6/9/2014 07:34 PM
Vinyl chloride	ND		5.0	ppbv	10	6/9/2014 07:34 PM
<i>Surr: Bromofluorobenzene</i>	102		60-140	%REC	10	6/9/2014 07:34 PM

Note:

Client: ALS Laboratory Group, Inc.
Work Order: 1406131
Project: 20-1406168

QC BATCH REPORT

Batch ID: R108931		Instrument ID: VMS3		Method: ETO-15							
Mblk	Sample ID: Blank2-R108931				Units: ppbv	Analysis Date: 6/9/2014 10:53 AM					
Client ID:		Run ID: VMS3_140609A		SeqNo: 838838		Prep Date:	DF: 1				
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane		ND		0.50							
1,1,2,2-Tetrachloroethane		ND		0.50							
1,1,2-Trichloroethane		ND		0.50							
1,1-Dichloroethane		ND		0.50							
1,1-Dichloroethene		ND		0.50							
1,2,4-Trichlorobenzene		ND		0.50							
1,2,4-Trimethylbenzene		ND		0.50							
1,2-Dibromoethane		ND		0.50							
1,2-Dichlorobenzene		ND		0.50							
1,2-Dichloroethane		ND		0.50							
1,2-Dichloropropane		ND		0.50							
1,3,5-Trimethylbenzene		ND		0.50							
1,3-Butadiene		ND		0.50							
1,3-Dichlorobenzene		ND		0.50							
1,4-Dichlorobenzene		ND		0.50							
1,4-Dioxane		ND		1.0							
2-Butanone		ND		0.50							
2-Hexanone		ND		0.50							
4-Ethyltoluene		ND		0.50							
4-Methyl-2-pentanone		ND		0.50							
Acetone		ND		1.0							
Benzene		ND		0.50							
Benzyl chloride		ND		0.50							
Bromodichloromethane		ND		0.50							
Bromoform		ND		0.50							
Bromomethane		ND		0.50							
Carbon disulfide		ND		0.50							
Carbon tetrachloride		ND		0.50							
Chlorobenzene		ND		0.50							
Chloroethane		ND		0.50							
Chloroform		ND		0.50							
Chloromethane		ND		0.50							
cis-1,2-Dichloroethene		ND		0.50							
cis-1,3-Dichloropropene		ND		0.50							
Cumene		ND		0.50							
Cyclohexane		ND		0.50							
Dibromochloromethane		ND		0.50							
Dichlorodifluoromethane		ND		0.50							
Ethyl acetate		ND		0.50							
Ethylbenzene		ND		0.50							
Freon 113		ND		0.50							

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Laboratory Group, Inc.
Work Order: 1406131
Project: 20-1406168

QC BATCH REPORT

Batch ID: R108931	Instrument ID: VMS3	Method: ETO-15				
Freon 114		ND	0.50			
Heptane		ND	0.50			
Hexachlorobutadiene		ND	0.50			
Hexane		ND	0.50			
m,p-Xylene		ND	0.50			
Methylene chloride		ND	0.50			
MTBE		ND	0.50			
Naphthalene		ND	0.50			
o-Xylene		ND	0.50			
Propene		ND	0.50			
Styrene		ND	0.50			
Tetrachloroethene		ND	0.50			
Tetrahydrofuran		ND	0.50			
Toluene		ND	0.50			
trans-1,2-Dichloroethene		ND	0.50			
trans-1,3-Dichloropropene		ND	0.50			
Trichloroethene		ND	0.20			
Trichlorofluoromethane		ND	0.50			
Vinyl acetate		ND	0.50			
Vinyl chloride		ND	0.50			
<i>Surr: Bromofluorobenzene</i>	9.99	0	10	0	99.9	60-140
						0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Laboratory Group, Inc.
Work Order: 1406131
Project: 20-1406168

QC BATCH REPORT

Batch ID: **R108931** Instrument ID: **VMS3** Method: **ETO-15**

LCS	Sample ID: LCS-R108931			Units: ppbv			Analysis Date: 6/9/2014 10:13 AM			
Client ID:	Run ID: VMS3_140609A			SeqNo: 838837			Prep Date: _____ DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.75	0.50	10	0	108	58.8-163	0	0	—	—
1,1,2,2-Tetrachloroethane	9.06	0.50	10	0	90.6	60-140	0	0	—	—
1,1,2-Trichloroethane	9.03	0.50	10	0	90.3	60-140	0	0	—	—
1,1-Dichloroethane	8.27	0.50	10	0	82.7	60-140	0	0	—	—
1,1-Dichloroethene	8.52	0.50	10	0	85.2	60-140	0	0	—	—
1,2,4-Trichlorobenzene	11.74	0.50	10	0	117	49.3-150	0	0	—	—
1,2,4-Trimethylbenzene	11.53	0.50	10	0	115	50.1-162	0	0	—	—
1,2-Dibromoethane	9.5	0.50	10	0	95	60-140	0	0	—	—
1,2-Dichlorobenzene	11.59	0.50	10	0	116	41.9-141	0	0	—	—
1,2-Dichloroethane	9.38	0.50	10	0	93.8	60-140	0	0	—	—
1,2-Dichloropropane	7.65	0.50	10	0	76.5	60-140	0	0	—	—
1,3,5-Trimethylbenzene	11.34	0.50	10	0	113	60-140	0	0	—	—
1,3-Butadiene	10.57	0.50	10	0	106	50.6-140	0	0	—	—
1,3-Dichlorobenzene	11.06	0.50	10	0	111	60-140	0	0	—	—
1,4-Dichlorobenzene	10.65	0.50	10	0	106	55.1-145	0	0	—	—
1,4-Dioxane	8.77	1.0	10	0	87.7	60-140	0	0	—	—
2-Butanone	8.41	0.50	10	0	84.1	60-140	0	0	—	—
2-Hexanone	7.7	0.50	10	0	77	56.2-162	0	0	—	—
4-Ethyltoluene	11.48	0.50	10	0	115	60-140	0	0	—	—
4-Methyl-2-pentanone	7.72	0.50	10	0	77.2	60-140	0	0	—	—
Acetone	8	1.0	10	0	80	60-140	0	0	—	—
Benzene	9.08	0.50	10	0	90.8	60-140	0	0	—	—
Benzyl chloride	12.22	0.50	10	0	122	31.9-174	0	0	—	—
Bromodichloromethane	9.33	0.50	10	0	93.3	60-140	0	0	—	—
Bromoform	12.25	0.50	10	0	122	60-140	0	0	—	—
Bromomethane	10.78	0.50	10	0	108	60-140	0	0	—	—
Carbon disulfide	8.64	0.50	10	0	86.4	60-140	0	0	—	—
Carbon tetrachloride	11.6	0.50	10	0	116	60-140	0	0	—	—
Chlorobenzene	9.5	0.50	10	0	95	60-140	0	0	—	—
Chloroethane	10.16	0.50	10	0	102	60-140	0	0	—	—
Chloroform	9.48	0.50	10	0	94.8	60-140	0	0	—	—
Chloromethane	8.52	0.50	10	0	85.2	60-140	0	0	—	—
cis-1,2-Dichloroethene	8.41	0.50	10	0	84.1	60-140	0	0	—	—
cis-1,3-Dichloropropene	9.43	0.50	10	0	94.3	60-140	0	0	—	—
Cumene	11.07	0.50	10	0	111	60-140	0	0	—	—
Cyclohexane	9.65	0.50	10	0	96.5	60-140	0	0	—	—
Dibromochloromethane	10.88	0.50	10	0	109	60-140	0	0	—	—
Dichlorodifluoromethane	9.43	0.50	10	0	94.3	60-140	0	0	—	—
Ethyl acetate	8.3	0.50	10	0	83	60-140	0	0	—	—
Ethylbenzene	10.01	0.50	10	0	100	60-140	0	0	—	—
Freon 113	9.29	0.50	10	0	92.9	60-140	0	0	—	—
Freon 114	10.13	0.50	10	0	101	60-140	0	0	—	—

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Laboratory Group, Inc.
Work Order: 1406131
Project: 20-1406168

QC BATCH REPORT

Batch ID: R108931	Instrument ID: VMS3	Method: ETO-15					
Heptane	7.3	0.50	10	0	73	60-140	0
Hexachlorobutadiene	12.86	0.50	10	0	129	60-140	0
Hexane	7.81	0.50	10	0	78.1	60-140	0
m,p-Xylene	20.54	0.50	20	0	103	60-140	0
Methylene chloride	6.91	0.50	10	0	69.1	60-140	0
MTBE	10.46	0.50	10	0	105	60.8-151	0
o-Xylene	10.21	0.50	10	0	102	60-140	0
Propene	7.41	0.50	10	0	74.1	34.4-139	0
Styrene	11.09	0.50	10	0	111	60-140	0
Tetrachloroethene	11.95	0.50	10	0	120	60-140	0
Tetrahydrofuran	7.84	0.50	10	0	78.4	60-140	0
Toluene	9.69	0.50	10	0	96.9	60-140	0
trans-1,2-Dichloroethene	9.62	0.50	10	0	96.2	60-140	0
trans-1,3-Dichloropropene	9.97	0.50	10	0	99.7	60-140	0
Trichloroethene	9.01	0.20	10	0	90.1	60-140	0
Trichlorofluoromethane	9.55	0.50	10	0	95.5	60-140	0
Vinyl acetate	11.16	0.50	10	0	112	48.4-145	0
Vinyl chloride	9.21	0.50	10	0	92.1	60-140	0
<i>Surr: Bromofluorobenzene</i>	10.6	0	10	0	106	60-140	0

The following samples were analyzed in this batch:

1406131-01A 1406131-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Laboratory Group, Inc.
Work Order: 1406131
Project: 20-1406168

QC BATCH REPORT

Batch ID: **R108998** Instrument ID: **VMS3** Method: **ETO-15**

MBLK		Sample ID: BLANK-R108998			Units: ppbv		Analysis Date: 6/11/2014 11:18 AM			
Client ID:		Run ID: VMS3_140611A			SeqNo: 840485		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Propanol	ND		1.0							
<i>Surr: Bromofluorobenzene</i>	10.16	0	10	0	102	60-140		0		

LCS		Sample ID: LCS-R108998			Units: ppbv		Analysis Date: 6/11/2014 10:38 AM			
Client ID:		Run ID: VMS3_140611A			SeqNo: 840484		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Propanol	8.75	1.0	10	0	87.5	60-140		0		
<i>Surr: Bromofluorobenzene</i>	10.56	0	10	0	106	60-140		0		

The following samples were analyzed in this batch:

1406131-01A 1406131-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Laboratory Group, Inc.
Project: 20-1406168
WorkOrder: 1406131

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
ppbv	

ALS Environmental

Sample Receipt Checklist

Client Name: ALS-HOLLAND

Date/Time Received: 05-Jun-14 11:51

Work Order: 1406131

Received by: SNH

Checklist completed by: Stephanie H arrington

eSignature

06-Jun-14

Date

Reviewed by: Shawn Smythe

eSignature

11-Jun-14

Date

Matrices:

Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Temperature(s)/Thermometer(s):

Yes No No VOA vials submitted

Yes No N/A

Yes No N/A

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace?

Yes No No VOA vials submitted

Water - pH acceptable upon receipt?

Yes No N/A

pH adjusted?

Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: